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Louisiana Offshore Lease Sale
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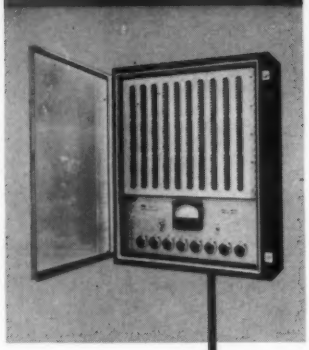

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Published Monthly By

Industrial Trade Publications
Telephone PLeasant 6-2427
CONROE, TEXAS

VAC
Member, Verified Audit Circulation

Address all communications to:

OFFSHORE
P. O. Box 977
Conroe, Texas

JOHN H. LATHAM
Editor and Publisher

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Morgan City, La.

Subscription price: $2 per year, $3 for two years. Foreign, $3 per year, $5 for two years.
Back issue, 50c when available.
Second class postage paid at Conroe, Texas

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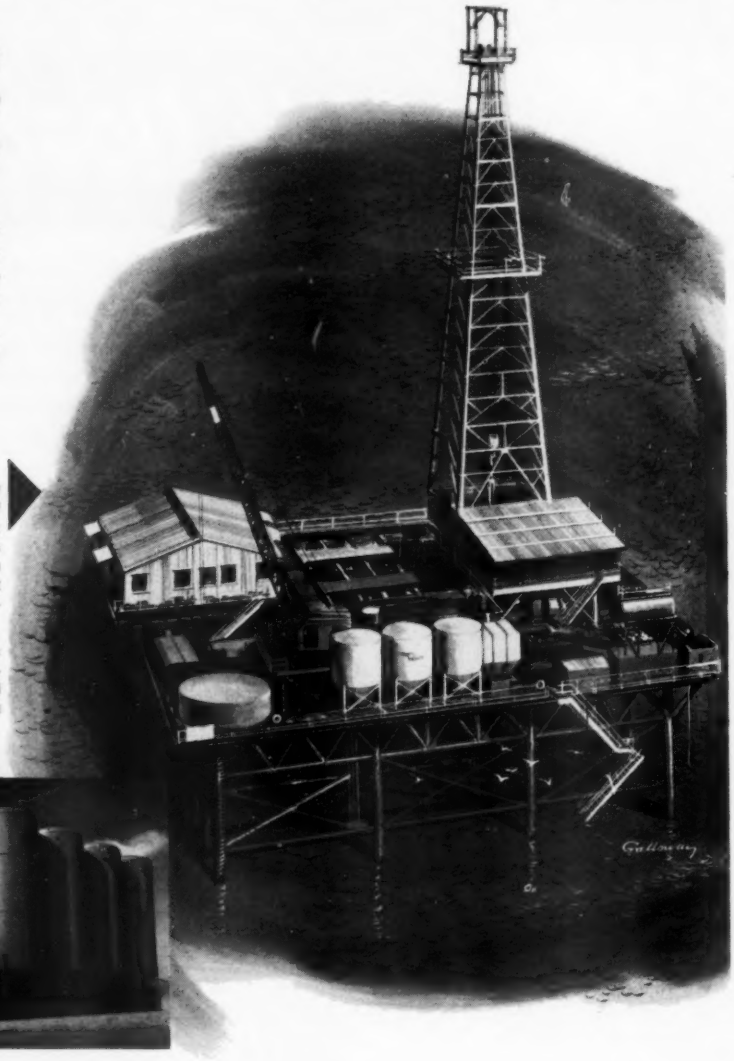

Magnolia Petroleum Company's offshore operation located off the southern coast of Louisiana. Installation consists of 3-820 cu. ft. capacity each pneumatic tanks to store weighting material or drilling mud; plus two additonal 820 cu. ft. tanks containing bulk cement. Each set of tanks is equipped with a surge bin to feed the dry material directly into the cement or mud system. Tanks provide 1,000 sacks of weighting material each or 700 sacks of cement materials.

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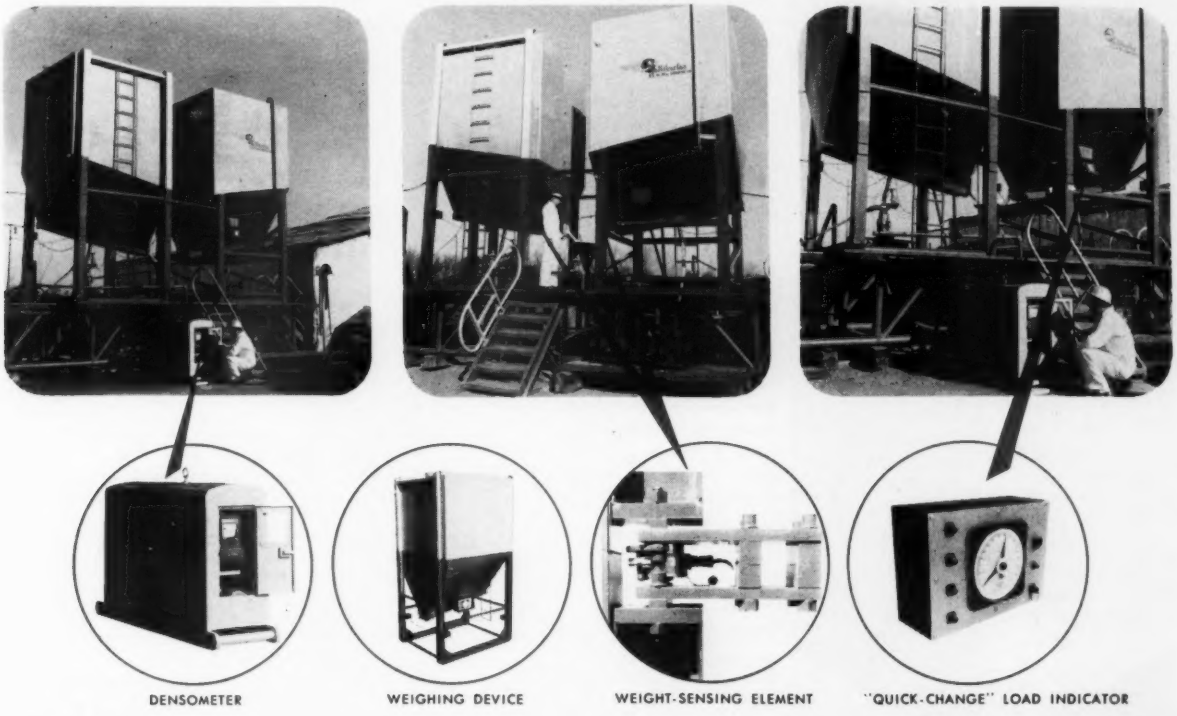

DENSOMETER | WEIGHING DEVICE | WEIGHT-SENSING ELEMENT | "QUICK-CHANGE" LOAD INDICATOR

DENSOMETER

The Halliburton Densometer, a slurry weight indicating instrument, was successfully used on the Pneumatic operation. It performs with complete accuracy, is easy to operate and maintain. A continuous density reading of the drilling mud down hole was provided throughout its entire operation. The instrument is equipped with a gauge which permanently records fluid density onto a strip chart recorder. Its ability to provide continuous sampling, recording and reading of density of fluid in lbs./gal. of the drilling mud proved to be a significant advancement for better control of drilling muds with greater economy.

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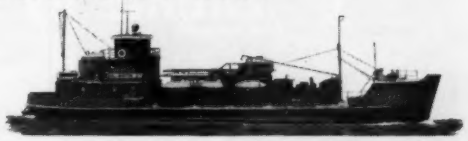

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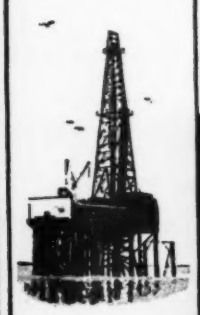

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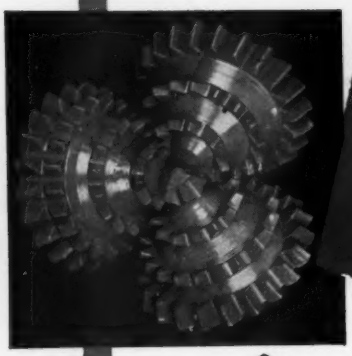

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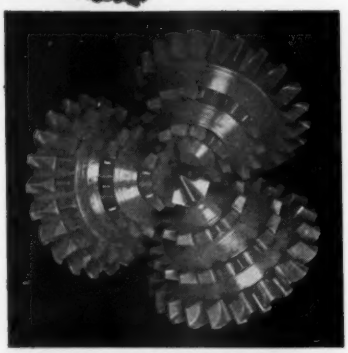

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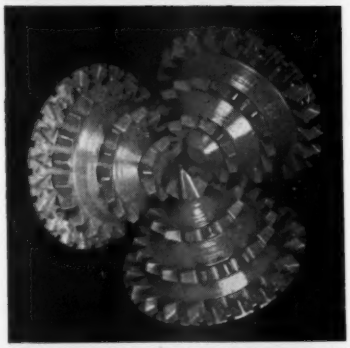

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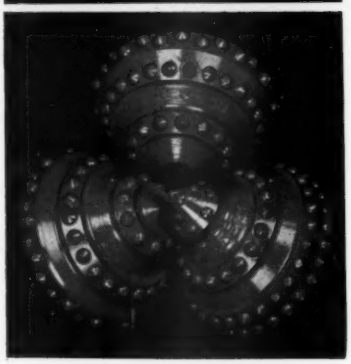

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With the Publisher

Have you been keeping up, lately, with the whopping big strikes made in Lake Maracaibo?

I made a strike once. It was back in my footloose wildcatting youth, when I managed to scrape up a little chunk of money and cable-tool down a few shallow holes in Kentucky. The first two holes on this particular lease just put a rainbow on the drilling water we baled out, but the third little 450-ft. well came romping in making 75 barrels a day.

Of course, it went to salt water in just a few days, but I couldn't help but think about it while writing up a report for this issue on an 8,200 barrel-per-day well Venezuelan Sun brought in recently in Lake Maracaibo. Over a hundred times as big as my little well!

Now, that's sure a lot of oil. But I just wonder if the oil patch hands who drilled it in got as all-fired excited as me and W. R. Mahan (who is now 74, and can still walk the shanks off a man half his age), when our Turner Campbell No. 3 came in. Our driller had an old Keystone rig, with a wooden derrick, that he'd paid $500 for. We didn't think he could drill postholes with it—Colonel Drake would have hesitated to use it, back in the old days. But be dogged if he didn't slam a hole down to the "blue sand" in a hurry, and that morning we started baling oil.

Right away, the hole started filling up with oil a lot faster than the driller could bale, and I reckon I scared every bootlegger in Taylor and Green counties the way I whooped it up.

Of course, things were pretty glum a week or so later, when we discovered we had a water well. But it was fun trying. And if you can't find oil in paying quantities, I guess the second-best thing to do is write about other folks—like Venezuelan Sun—finding it. So I reckon I'll be doing that, at least, when I . . .

See you next month!

Long John Latham

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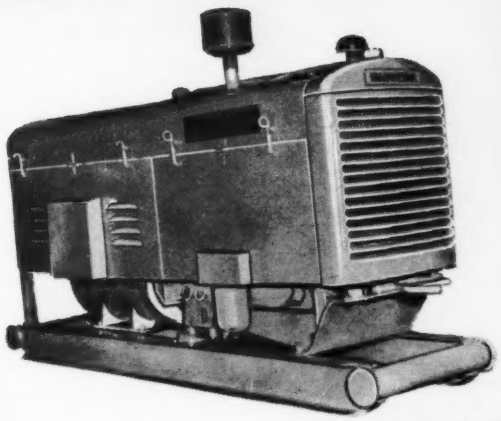

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Year's third . . .

Louisiana Lease Sale Nets $12 Million

► **Oil operators have paid a staggering $140 million during 1959 for leases on Louisiana's submerged lands**

► **"Inland marine" tracts account for approximately half of the revenue from the Sept. 17 sale**

Oil operators have again resoundingly demonstrated their willingness to gamble big money on Louisiana's submerged lands—this time by plunking down over $12 million in the third lease sale of the year involving offshore acreage.

Some $6,250,187.65 of this sum was paid for approximately 27,660.04 "inland marine" acres—in Vermilion, Four League, Caillou and Timbalier bays, in Lake Quitman and Lake Borgne, and in adjacent marsh and swampland where some 135 shallow-water drill barges were at work last week. Added to this was $2,874,740.00 anted up for 13,950 strictly offshore acres.

While bids received lagged behind the year's previous sales, acreage offered—particularly that offshore—was not nearly so attractive. The 23 offshore tracts put up by the state are mostly in wildcat territory. A number of the tracts have been leased before, and had dusters drilled on them.

And it must be remembered that the year's two previous lease sales broke all records. In February, oil operators paid $43.6 million for 66,937.82 submerged acres in the state's first offshore lease sale in nearly three years.

While the sale set new records, the records did not stand for long.

In the August federal lease sale in Zone 2—the disputed area between the 3 and 9 mile limits off Louisiana's coastline—oil operators bid *over* $88 *million for just* 28,819.9 *offshore acres.*

Average price per acre was $2,267.78. Shell Oil Company bid $26,105,000.00 for a 2,500-acre tract in in the South Pass area—or more than $10,000.00 per acre.

A staggering total

In this light, last month's sale is all the more impressive, since it involved "marginal" acreage. For it brought total bonus payment for Louisiana's submerged lands in 1959 to a staggering $140,818,128.59!

Operators have paid out this sum in 1959 for 147,367.76 acres of the state's submerged lands—both tideland and "inland marine"—or an average of almost $1 thousand per acre.

Of the 23 offshore tracts offered September 17, six bids were accepted, two were rejected.

Humble Oil & Refining Company made the highest bid for an offshore tract—$1,297,550.00 for Tr. 3682, being a portion of Block 66, Ship Shoal area, and containing 3,900 acres.

Mississippi River Fuel Corporation and Hope Natural Gas Company made the highest bid for an "inland marine" tract—$1,128,064.00 for the East half of Tr. 7590, or for 1,020 net acres.

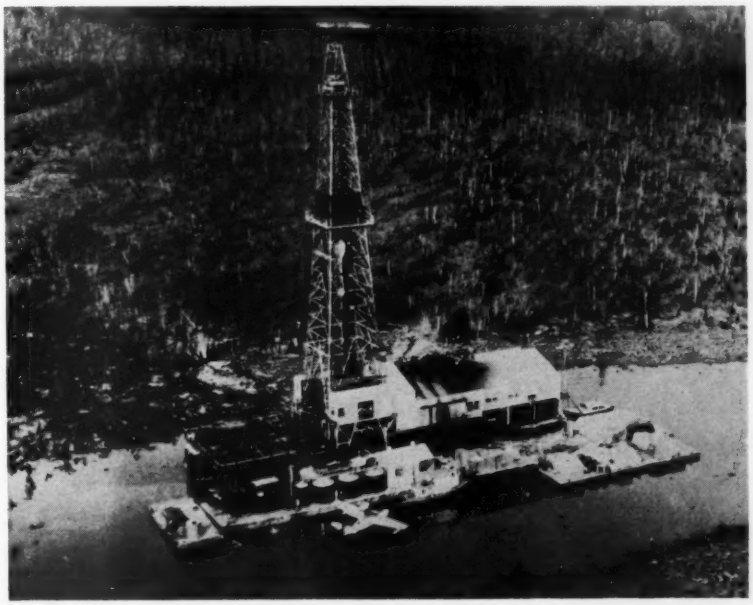
All of the offshore bids were based on 5-year term leases, with one-half of the bonus to be paid as rental in the event the lease is not drilled during the first year.

What is offshore?

To a layman looking at an offshore lease map, the difference between inland marine and offshore acreage is no doubt perplexing. Any lease in Breton Sound, or in Vermilion and Timbalier bays and similar areas, would seem to be obviously offshore.

The question becomes even more confusing when it is realized that more barge rigs are at work in the swamps, marshes and lakes of South

(*Continued on page* 15)



AS EVIDENCE OF THE FACT that South Louisiana's "terra" is not always so "firma," many of the leases awarded in the state's most recent sale are in marshes or swampland, and can only be drilled by shallow-water barges such as the one pictured above. Rig is the J. P. Stephens, purchased recently from Phillips Petroleum Company by An-Son Offshore Drilling Company.

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Lease Sale . . .

(*Continued from page* 13)

Louisiana than offshore—submersible drilling rigs that operate, normally, in from 6-ft. to 18-ft. of water.

Last week some 135 of these shallow-water drill barges were at work in Louisiana's "inland marine" oilfields, as opposed to 62 barge and platform rigs busy in the Gulf of Mexico off Louisiana. And in some offshore fields in shallow, protected areas, shallow-water barges are employed for development drilling.

State-federal dispute

Confusion as to what is offshore also extends to who owns what. Reference the state-federal dispute over ownership of acreage in Zone 2—the area between the 3 and 9 mile limits off Louisiana's coastline. The controversy has hampered orderly development of the oil-rich area. Pending settlement of the dispute, Zone 2 leases may be offered only if they are subject to drainage from productive leases nearby.

A U.S. Supreme Court decision in the case, after numerous delays, may be handed down this fall.

September 17 sale

Following are bids accepted in the state's latest sale of offshore acreage:

WEST CAMERON AREA

Tract 7666, Block 12, West Cameron area—a bid of $261,500.00 by Cypress Oil Company and Texas Gulf Producing Company for the East portion comprising 2,000 acres.

Tract 7668, a portion of Block 20, West Cameron area—a bid of $603,000.00 by British American Oil Producing Company for the entire tract containing 3,000 acres.

VERMILION AREA

Tract 7673, Block 5, Vermilion area—a bid of $93,000.00 by Humble Oil & Refining Company for 600 acres out of the 2,227-acre tract.

Tract 7675, a portion of Block 17, Vermilion area—a bid by Gulf Oil Corporation of $312,190.00 for the 3,450-acre tract.

SHIP SHOAL AREA

Tract 7677, a portion of Block 45, Ship Shoal area—bid of $307,500.00 by Union Oil Company of California for 1,000 acres out of the 2,590-acre tract.

Tract 7682, a portion of Block 66, Ship Shoal area—bid of $1,297,550.00 by Humble Oil & Refining Company for the entire 3,900-acre tract. Four bids were received on this tract, but Humble was the high bidder.

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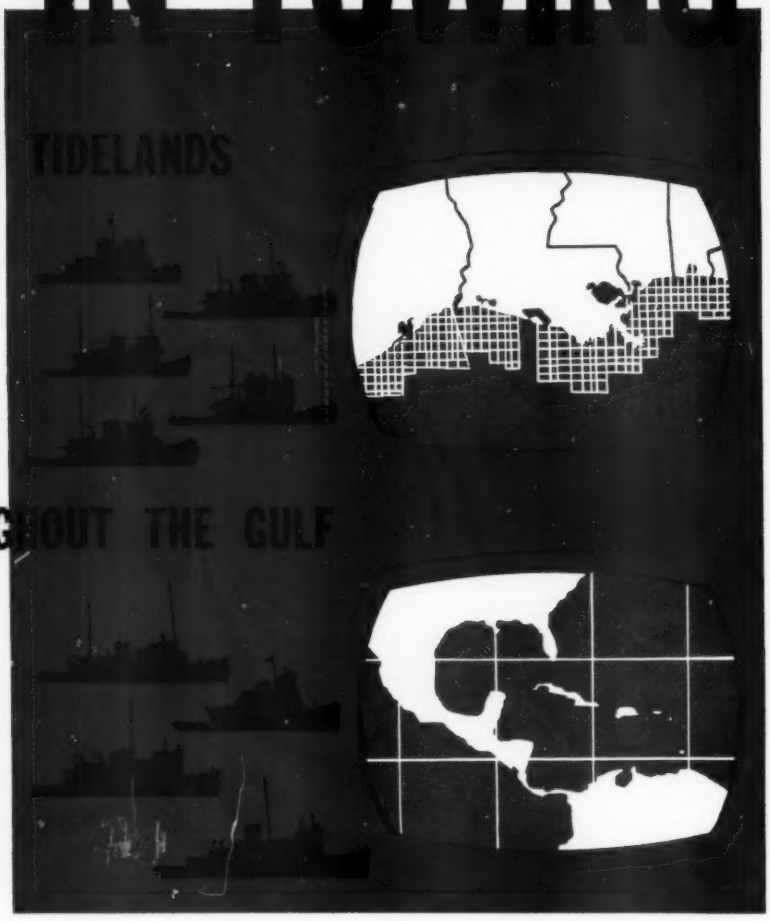

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RIDING THE CREST of a 30-ft. wave in the Straits of Yucatan, Semarca 23 plows along at reduced speed toward the Isle of Pines. Wind velocities at this point exceeded 70 miles per hour. Boat has lost her radio antenna, and has an emergency aerial rigged with a piece of wire clothesline stretched from mast to flagstaff.

A MEMORABLE TRIP TO LAKE MARACAIBO

CREW BOATS BATTLE TROPICAL STORM "BEULAH" DURING CROSSING

The 45-ft. Sewart-built **Semarca 23** is pictured above being tossed about by 30-ft. waves as it fights into the Straits of Yucatan, far down the Gulf of Mexico from its port of departure.

The crew boat and a twin vessel, the **Semarca 22,** departed Grand Isle, Louisiana on an unprecedented 1900-mile voyage to Lake Maracaibo, and were bound for a first re-fueling stop at the Isle of Pines when tropical storm **Beulah** struck head-on as they rounded Cape San Antonio on the westernmost tip of Cuba.

Winds reached a velocity of 70 miles per hour, and the two small boats bobbed like corks on waves up to 40-ft. high as they battled to make headway against the storm that struck without warning.

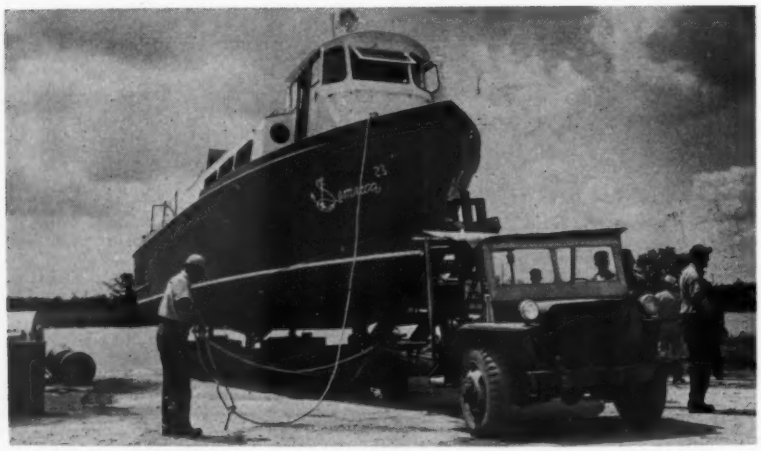
But while it was rough on the six men aboard the two tossing boats, the violent encounter with tropical storm **Beulah** served to highlight the purpose of the voyage.

Crew boats built in Louisiana shipyards are normally sent to Venezuela and other foreign countries as deck cargo on ocean-going vessels. H. F. Colby, executive vice president and general manager of George Engine Company of Harvey, Louisiana, conceived the unique delivery as a method of demonstrating the seaworthiness and reliability of the two 45-ft. Sewart Seacraft and their symetrically matched General Motors 6-71 diesel engines.

The boats fared well. But the 6-man crew was badly battered, could not eat, and lost an average of nearly 12 pounds per man during the 14-day trip.

PLANNING ROUTE for 1900-mile ocean voyage are, left to right, H. F. Colby, John P. Laborde and Fred Sewart. Laborde is president of Tidewater Marine Service, one of the sponsors of the trip.

FIGHTING HER WAY along Cuba's southwest coast, Semarca 22 encounters waves ranging up to 40-ft. in height. Surf in back-



SHIPYARD CREW prepares to launch Semarca 23 into Bayou Teche at Berwick. Helmsman's position is immediately aft of bow. This design, peculiar to Lake Maracaibo, gives the pilot extra visibility. But in high seas, it gave crew the sensation of riding a gigantic roller coaster.

IN RARE INSTANCE when he could venture on deck, Fred Sewart takes time to shave before boats stopped for re-fueling in Kingston, Jamaica. Wooden keg bolted to deck behind him was to be used for engine coolant spare, but was not needed.

SMALL BOATS C

As far as can be determined, the voyage of the **Semarca 22** and **Semarca 23** across the Gulf of Mexico and Caribbean Sea established a record for boats of the size and type delivered by George Engine Company to Tidewater Marine Service C.A. in Maracaibo, Venezuela.

Kingston, Jamaica and Nueva Gerona in the Isle of Pines were the only two ports into which the boats docked after leaving Grand Isle. Except for these brief halts, the entire 1900-mile voyage of the twin-screw 45-ft. crew boats was made across the open sea.

The boats were constructed for George Engine Company, Inc. of Harvey, Louisiana, by Sewart Seacraft, Inc. of Berwick, Louisiana, and the hulls were fully complete before the builder had any knowledge that delivery under their own power was proposed for the **Semarca 22** and **Semarca 23.** Construction was identical to that of eleven other hulls previously completed for George Engine Company, and de-

ground is breaking over 50-ft. coral cliffs. Engine failure here in Corrientes Bay would have spelled disaster. Weather reports gave no indication that boats were heading into a hurricane.

CROSS 1900 MILES OF OPEN SEA

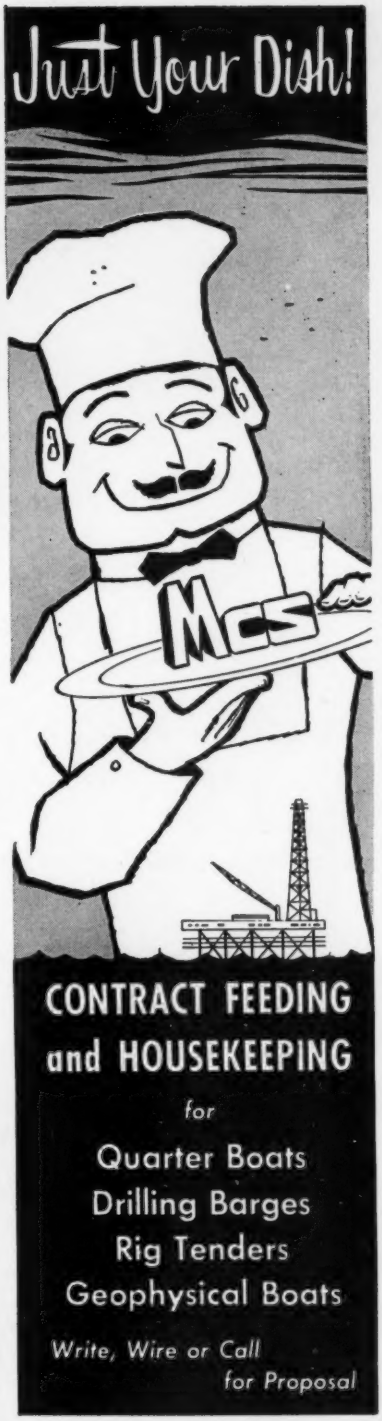
livered via steamship as deck cargo to customers in Venezuela.

In service on Lake Maracaibo, the boats have a carrying capacity of 16 passengers and a crew of two. Neither boats nor engines were modified in any way for the 1900-mile trip down the Gulf and Caribbean, except for the addition of auxiliary fuel tanks and emergency equipment such as two-way radios.

H. F. Colby, executive vice president and general manager of George Engine Company, served as master of the Semarca 23, with Fred Sewart, president of Sewart Seacraft, and Paul Kalman, a public relations

(*Continued on next page*)

AT END OF TRIP, certificate of honorary citizenship from New Orleans' Mayor deLesseps S. Morrison is accepted by Elroy Villarubia, right, governor of Venezuelan state of Zulia. Others, from left to right, are Herb Colby, Edward Bent, Carl McClaren and Fred Sewart. McClaren's company purchased boats for service on Lake Maracaibo.



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Two Small Boats . . .

(*Continued from preceding page*)
official, as his crew.

The **Semarca** 22 was captained by Cameron Thompson of Morgan City, with Scott Tibbs, owner of a flying service, and William Lee, dealer relations manager for George Engine Company, serving as ordinary seamen for the trip.

When the boats departed from Harvey, Louisiana, with a stopover at Grand Isle, it was hoped the voyage would be completed in 10 days. But this plan went out the window after the encounter with **Beulah.** From then on, the boats were constantly fighting strong winds and high waves, most of them coming from the southeast, the course in which they were headed.

But violent seas encountered in the Caribbean, while rough on the crew, only served to underscore the seaworthiness of the sturdy 45-ft. crew boats and twin GM diesels aboard each.

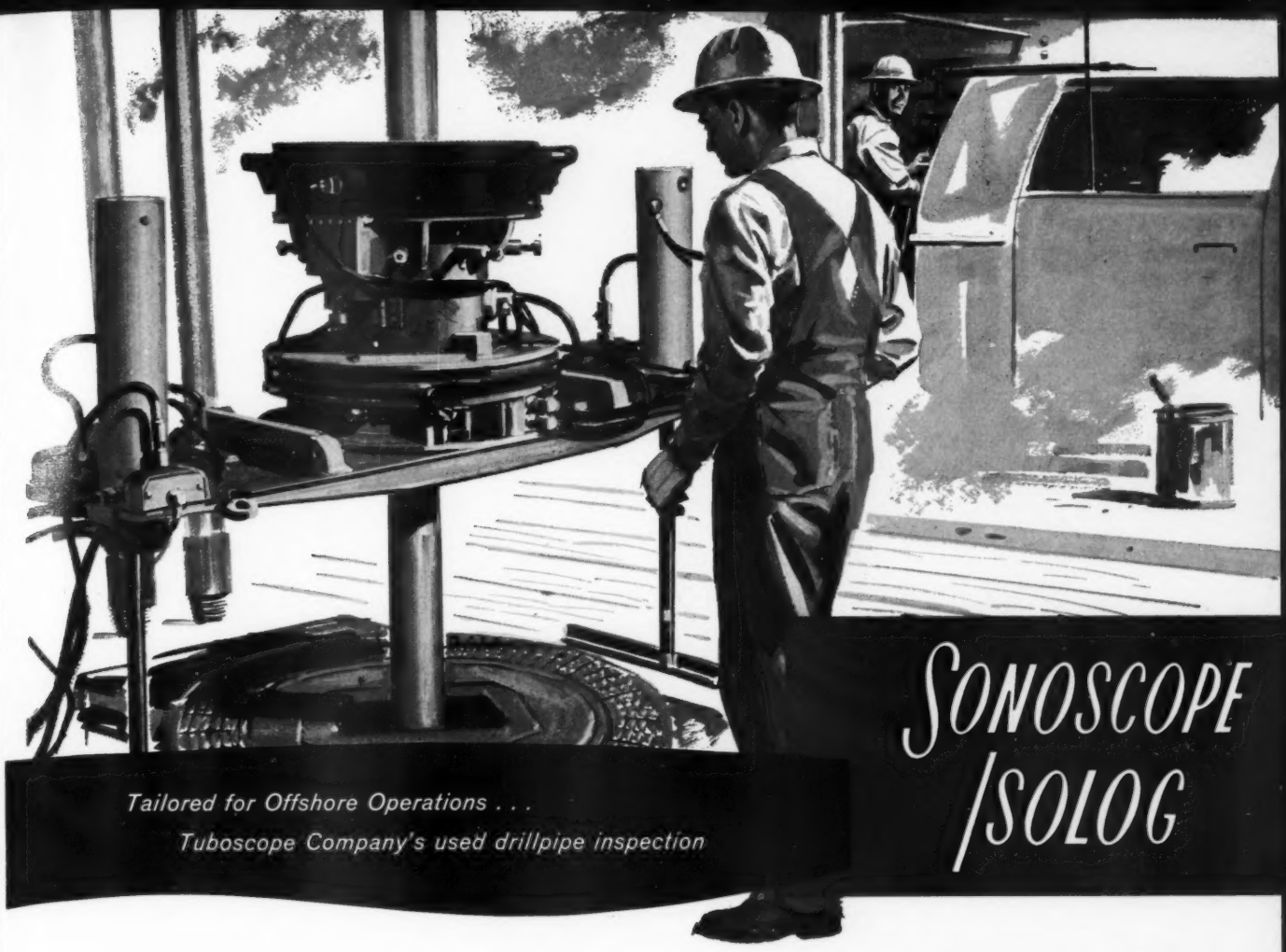
The only damage suffered by either boat was that one lost her radio antenna to the 70 mile-per-hour winds in the Straits of Yucatan, and the other parted her flagstaff.

Colby reported that except for changing fuel filters, it was unnecessary to make any adjustments or repairs to the GM diesels, and that filters had to be replaced only because of dirt and debris pumped into the tanks while they were being fueled early in the voyage.

At no time did either boat take aboard "green water."

"The buoyancy of these crew boats is almost impossible to describe," Colby related. "We were frequently in waves as high as a three-story building, but we rode from the crest of one wave down into what seemed to be a bottomless valley, and then up the crest of the next one. We felt like we were on an amusement park roller coaster, only much worse. But outside of discomfort, we were not in any danger."

The encounter with tropical storm **Beulah**—No. 2 storm of the season—was unexpected, as weather reports gave no indication of a serious disturbance in the area. While passage from Cape San Antonio to Nueva Gerona was the most difficult and dangerous, the final stage of the voyage from Kingston, Jamaica to Maracaibo was recorded as the most trying, due to abnormally high seas and winds for the entire distance.



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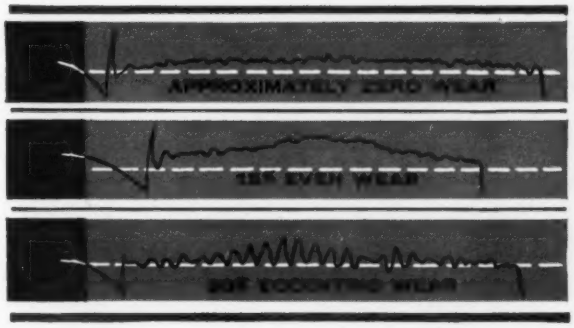

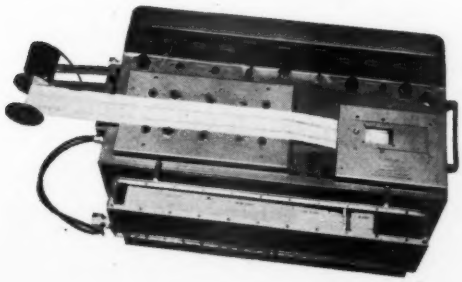

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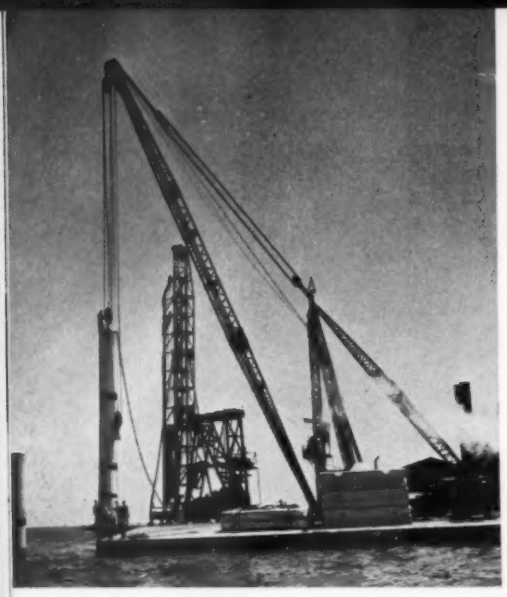

THE MUSCLE of J. Ray McDermott's Derrick Barge No. 11 is an American Revolver Crane (right) with a 220′ boom and a capacity of 250 tons. Working on Lake Maracaibo, Venezuela, a 250 ton capacity American Derrick (top) is driving concrete piles.

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TANKER ISLAND UNDER TOW to Persian Gulf carries large crane for pile driving on bow, 3-story air-conditioned living quarters on stern. Note steel "legs" stacked amidships.

TANKER ISLAND TOWED TO PERSIAN GULF

TO BE A PART OF DEEP-WATER TERMINAL 24 MILES OFF IRAQ

Looking something like a Mississippi River steamer, the barge above is actually part of an unusual deep-water tanker terminal to be erected in the Persian Gulf.

The rig is shown starting the 7,000-mile tow from England, where it was built as a joint venture by DeLong Overseas, Ltd., Raymond International (U.K.), Ltd., and Richard Costain Middle East, Ltd. It was expected to arrive in the Persian Gulf late in September.

On location 24 miles off the coast of Iraq, the barge will be separated into two sections, each of which will put down hydraulically-operated legs, or caissons, for "walking" on the floor of the 80-ft. deep Gulf. It will become, in effect, two separate mobile units which will serve as working platforms in construction of the 1,200-ft. long terminal for Basrah Petroleum Company of Iraq. When work is completed, both platforms will be incorporated into the terminal as permanent structures—one as a heliport, the other as living quarters.

Two 32-in. submarine pipelines will be laid to link the terminal with Fao, the present oil port. When finished the terminal will accommodate two 65,000-ton tankers simultaneously.

GENERAL CHAIRMAN of the Lafayette oil show is George Petrie (left), regional superintendent for Sun Oil Company. With him is co-chairman Leo Franques, Louisiana manager for Servco Gulf Corporation.

PRETTY ATTRACTION at show will be this year's queen, Sandra Hayes of Lafayette.

Record attendance anticipated at . . .

Lafayette Oil Show

Third Louisiana Gulf Coast Oil Exposition, Oct. 8-11, is expected to attract more than 200,000 visitors

Climaxing the state's celebration of the oil industry's centennial, the third Louisiana Gulf Coast Oil Exposition will be held in Lafayette, Louisiana Oct. 8-11.

The bienniel oil show, largest along the Gulf Coast, is expected to attract 50,000 to 100,000 more visitors than the last (1957) show, when about 150,000 attended.

"We now have a complete sell-out of space," said George A. Petrie, general chairman of the exposition and regional superintendent for Sun Oil Company at Lafayette. "The 275 available spaces have been sold to 205 exhibitors, and we expect larger crowds than attended either the 1955 or 1957 shows."

The non-profit exposition, manned by more than a hundred volunteer workers from the oil and gas industry in South Louisiana, is staged in and around mammoth Blackham Coliseum in Lafayette. It is rated the most popular oil show anywhere up and down the Gulf Coast.

Visit!
The Lafayette Oil Show
Oct. 8 - 11

Special events of the 4-day celebration will include selection and crowning of queens for the coming two years, an oil equipment parade and queens' parade, an informal oil jamboree, a huge Louisiana shrimp boil, and a barbeque supplied by the Chuck Wagon Gang of Odessa, Texas.

Ranked as a major oil supply center, Lafayette staged its first exposition four years ago with 120 exhibitors. The 1957 show attracted 188 exhibitors, while this year's show will have 205 exhibitors and marks the first complete sell-out of exhibit space.

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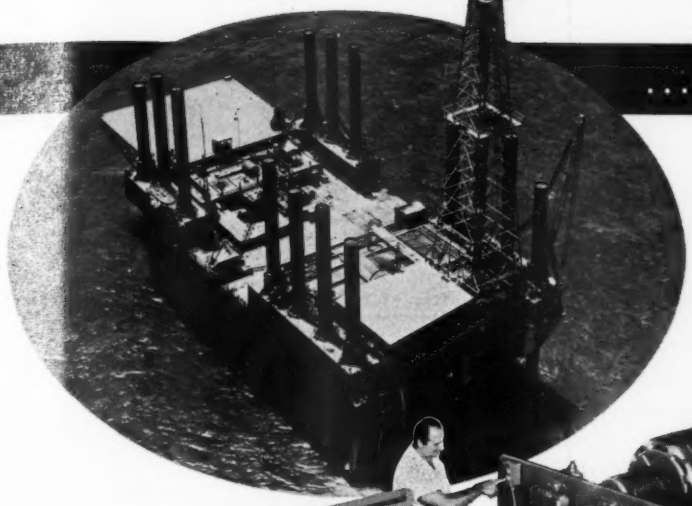
...raising off-shore oil drilling rigs



For its unique design of hydraulic and electrical circuits with many safety features, Hydro-Air was awarded the contract for this off-shore oil drilling rig. In water 120 feet deep the rig had to be raised absolutely level 30 feet above the ocean surface regardless of irregularities of the ocean floor. Four 120 HP Hydro-Air power units operating at a maximum of 3000 p. s. i. raise and lower each corner of the rig. Fourteen legs are controlled from a central point by one man at the control.

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Canada

Survey Underway In Sable Island Area Off Canada

Mobil Oil Company has extended its search for oil out into the Atlantic Ocean off Canada.

An aeromagnetic survey was started September 1 on a 600,000-acre tract centering on Sable Island, about 100 miles east of Halifax, Nova Scotia. Most of the survey will be made by Canadian Aero Service, Ltd. of Ottawa, and is expected to take one to two months to complete.

Most of the area lies 10 to 60 feet underwater.

California

Exploration Geophysicists To Hear Discussion Of "Moho"

New information on the much-discussed Moho project will be revealed by R. F. Bauer during his talk on "Offshore Operations In California" during the 29th Annual International Meeting of the Society of Exploration Geophysicists in Los Angeles, November 9-12. The Moho project contemplates drilling up to seven miles deep to entirely pierce the earth's crust.

Florida

Calco To Drill Wildcat Off Northwest Coast

The California Company has entered into an agreement with Coastal Petroleum Company, a subsidiary of Coastal Caribbean Oil, Inc., to drill a wildcat well on a 10,000-acre block off the northwest Florida coast. The 10,000-acre block is part of 4 million acres held by Coastal Petroleum off Florida.

The well will be the first ever drilled off the northwest Florida coast. It will test a seismic structure located about 1½ miles off Franklin County, and will seek production in the Tuscaloosa sands, currently productive in nearby Alabama and Mississippi. Drilling will be undertaken from a submersible barge to a depth of approximately 7,000-ft.

Calco will defray all expenses of drilling and earn a 50 percent interest in the block. The agreement also calls for participation by Calco in the remainder of the 4 million Florida offshore acres held by Coastal Petroleum.

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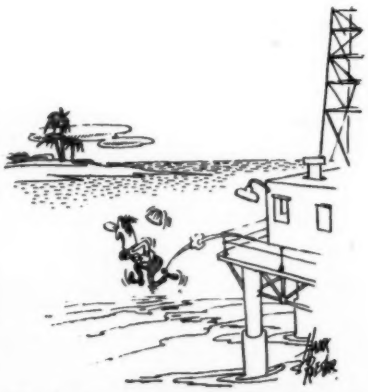

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HOUSTON, TEXAS

Gulf Abandons Expensive Wildcat Near Key West

Gulf Oil Corporation has plugged and abandoned an expensive 15,475-ft. Lower Cretaceous test drilled in 18-ft. of water near the Marquesa Keys, 15 miles west of Key West, Florida.

The test—on a massive lease of more than 3,000,000 acres—marked Gulf's fourth attempt to find oil below the Florida mainland. Previous efforts include unproductive wildcats on Big Pine Key (1945), Sugar Loaf Key (1947), and on Sandy Key (1955).

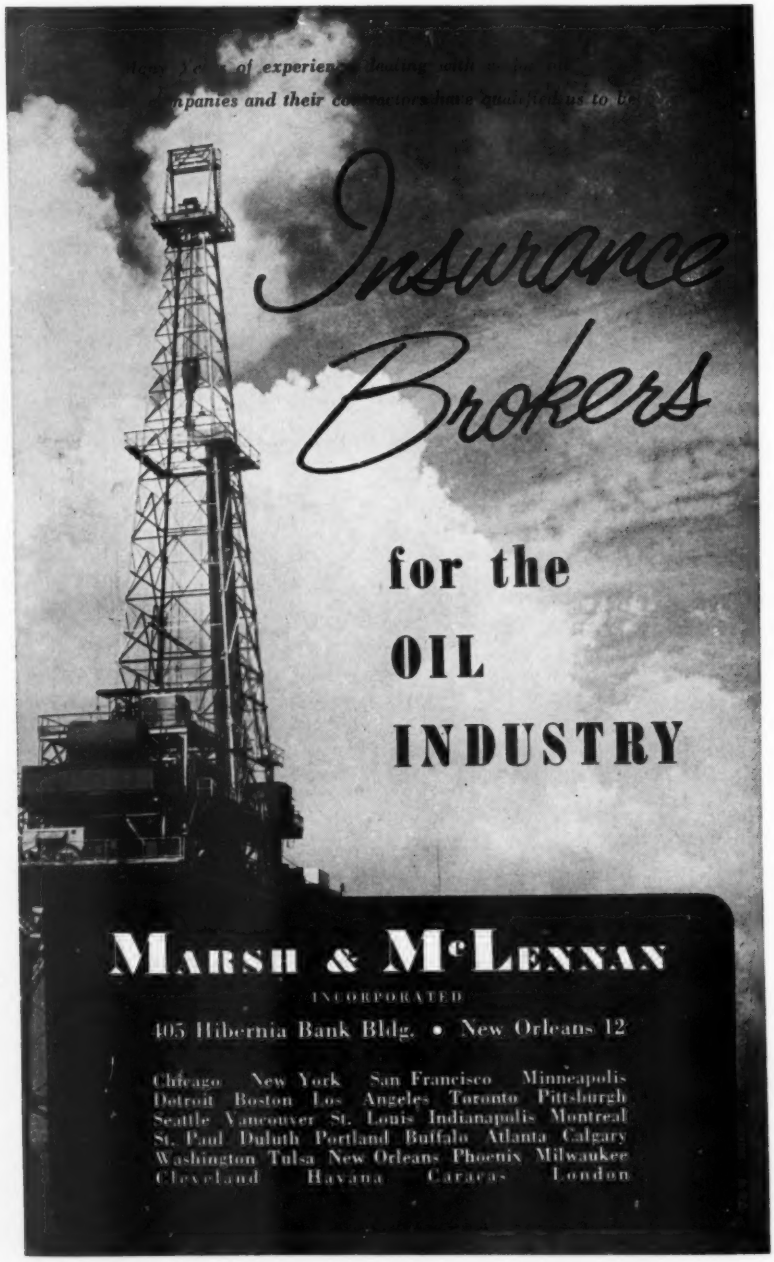
The latest try, announced as a 15,000-ft. test, reached 15,475-ft. before it was abandoned. It was drilled by **Kermac Rig 45.**

Louisiana

Conoco Spending $25 Million In Pelican State In '59

Continental Oil Company will invest approximately $25 million in exploration, production, manufacturing and marketing activities in Louisiana during 1959, according to O. L. Fisher, vice president and general manager of the company's southern region. This does not include the annual company payroll of $7.6 million for some 1,150 employees in Louisiana, or maintenance and other normal operating expenditures.

The Louisiana investment includes $18 million for the drilling of 42 development and seven exploratory wells in the offshore and onshore areas of the state. Conoco's wells onshore and in the Louisiana tidelands are currently producing 15,300 net barrels of oil daily.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Meetings

Drilling Contractors Meet In Oklahoma City, Oct. 11-13

The 19th annual meeting of the American Association of Oilwell Drilling Contractors will be held at the Skirvin Hotel, Oklahoma City, October 11-13.

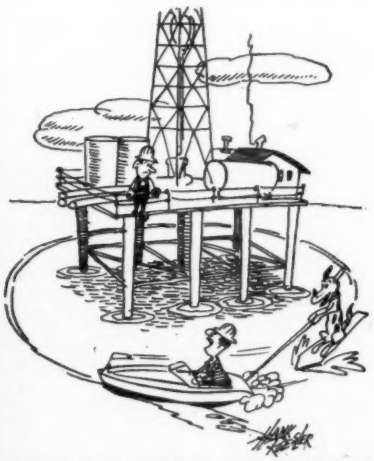
Registration will start at 11:00 a.m., Sunday, October 11.

Regional Conferences For Corrosion Engineers

Corrosion engineers in the petroleum and allied industries will hold technical committee meetings to discuss common problems in three widely separated cities during October. The meetings will be part of regional conferences of the National Association of Corrosion Engineers.

The meetings will be in Denver,

(*Continued on page* 30)



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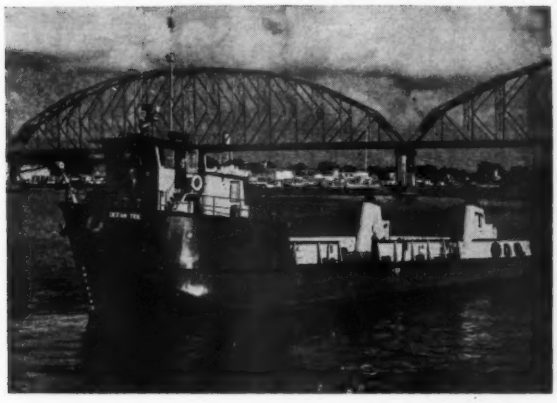

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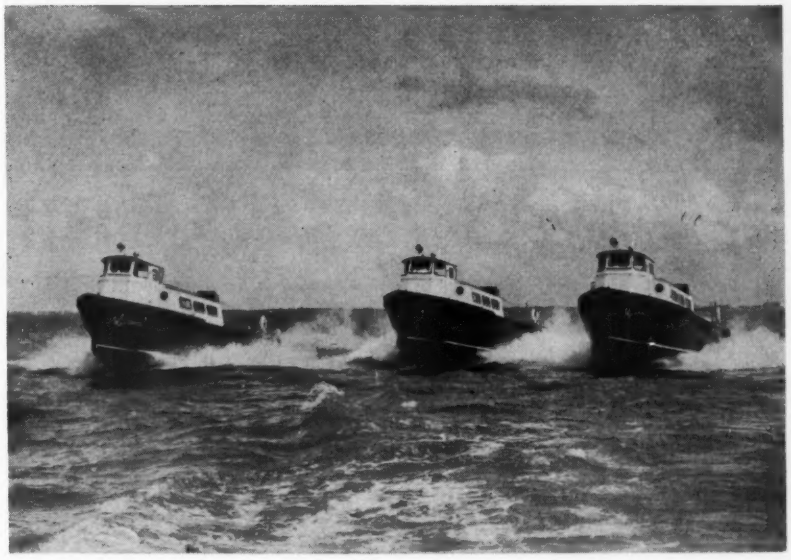

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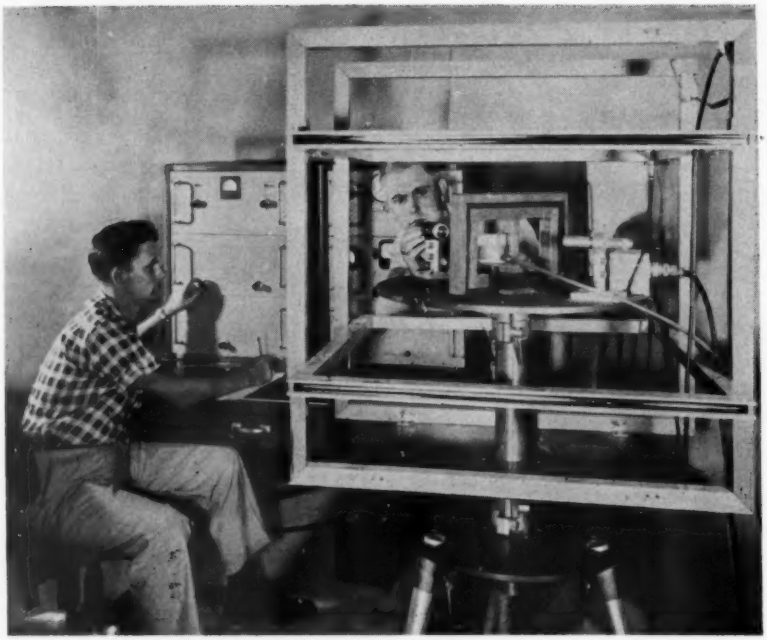

NEW CLUE IN THE SEARCH FOR OIL is being pursued by Shell scientists through use of the complex instrument above. A special, extremely sensitive magnetometer, it permits geographical orientation of cores from oil well bores many thousands of feet beneath the earth's surface. This directional alignment is made possible by the fact that when the core's sand grains were laid down, presence of a minute quantity of mineral called magnetite caused the grains to act like a compass needle and point toward the north magnetic pole.

Corrosion Engineers . . .

(*Continued from page* 28)

October 12-15, in Baltimore, October 5-8 and in Cleveland, October 20-22. Technical papers will be presented at each of the three meetings.

ASME Schedules Houston Meet, September 20-23

New and faster ways of getting petroleum out of the earth and to the consumer will be discussed at a national conference in Houston, Texas, next month. The Petroleum Mechanical Engineering Conference sponsored by The American Society of Mechanical Engineers will offer twenty-two sessions devoted to the technology and the techniques of petroleum production, September 20-23, at the Rice Hotel.

Among program topics are: remote control systems, sonic pumps, materials for high and low temperature well operation, electronic computers for pipeline planning, maintenance problems and new research results in drilling and production.

Panel sessions on well-servicing, refining and gas products and the pressure vessel code will also be offered.

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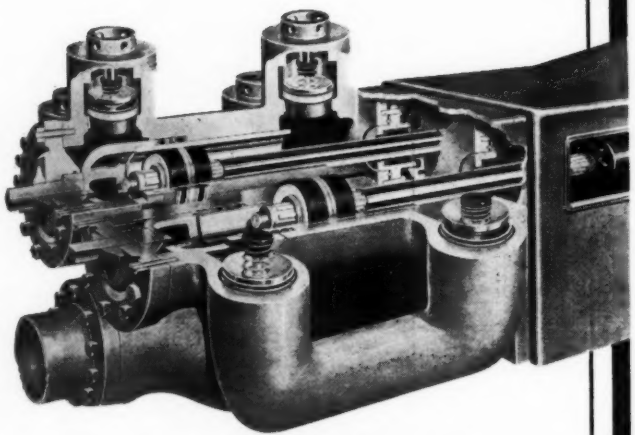

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Qatar

"Seashell's" First Location Will Be In 80 Feet Of Water

The new drill barge **Seashell** built by Shell Company of Qatar to replace a portable drilling island wrecked in late 1956, will drill its first location in 80-ft. of water some 50 miles northeast of Ras Laffan in the Persian Gulf, according to latest reports.

The drill barge was built in the Netherlands, and left under tow for Qatar earlier this year. It may have arrived at its destination by this writing.

The barge is equipped to drill to 15,000-ft. depths in water 100-ft. deep. Since its predecessor was lost to a storm in the sometimes violent Persian Gulf, the new barge is built to withstand winds up to 100 mph and waves up to 30-ft. high.

Texas

New Humble Company To Operate In 43 States

The Humble Oil & Refining Company, under the unification program worked out for Standard Oil Company (N. J.) and its domestic subsidiaries, will be one of the nation's biggest.

The new domestic company—which will carry the Humble name—will have marketing outlets in 37 states, production in 20 states, and refining operations in seven states. Only Alaska, Georgia, Hawaii, Missouri, Minnesota, Nevada and Ohio are not represented in the Humble line-up.

A new $32 million 44-story office building, to be completed in downtown Houston in 1961, will probably be headquarters for the new Humble corporation.

When the merger is completed, the new company will bring 43,500 employees under a single corporate roof. The annual payroll will be nearly $350 million.

Total crude production for the year 1958, for all companies concerned, was 472,000 bpd. Gas production for the consolidated operation will top 500 billion cu. ft. annually, while proved crude reserves are 4.3 billion bbls. and refining capacity is 950,000 bpd.

Magnolia Petroleum To Operate As Mobil Oil

Magnolia Petroleum Company is reorganizing and will operate as Mobil Oil Company. The company, a wholly-owned affiliate of Socony Mobil Oil Company, will be responsible for all Socony Mobil operations in the U. S. and Canada.

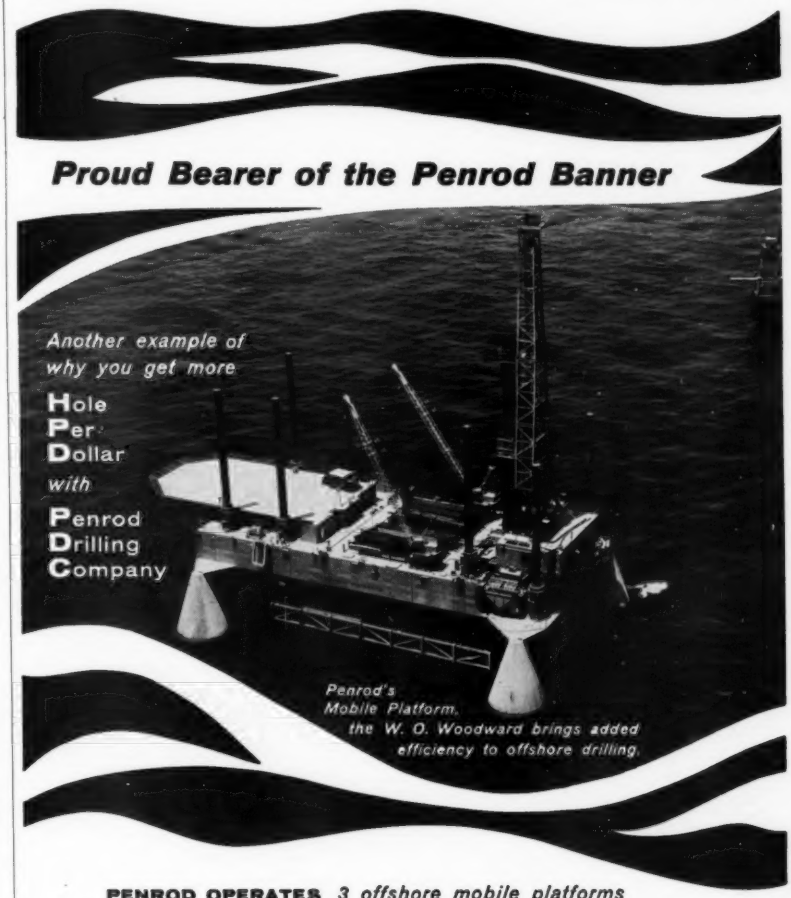
Venezuela

Wage Hike Could Cost Oil Industry $200 Million Yearly

Oil companies operating in Venezuela—already hard hit by a bigger government tax bite—may pay up to $200 million more for labor annually if the Venezuelan Oil Workers' Federation wage demands are met.

Wage boosts for 43,000 oil workers covered by the union's 1956 contract, plus 8,000 workers employed by contractors, would add approximately $30 million annually in direct wages. Fringe benefits could boost to $200 million annually the total increased cost to oil companies. This would be a 50 percent increase over the current labor bill for the oil companies and contractors, now estimated at $400 million annually.

The present contract expires this month. With negotiations underway, the Venezuelan government has indicated that it would move to forestall any threatened strike.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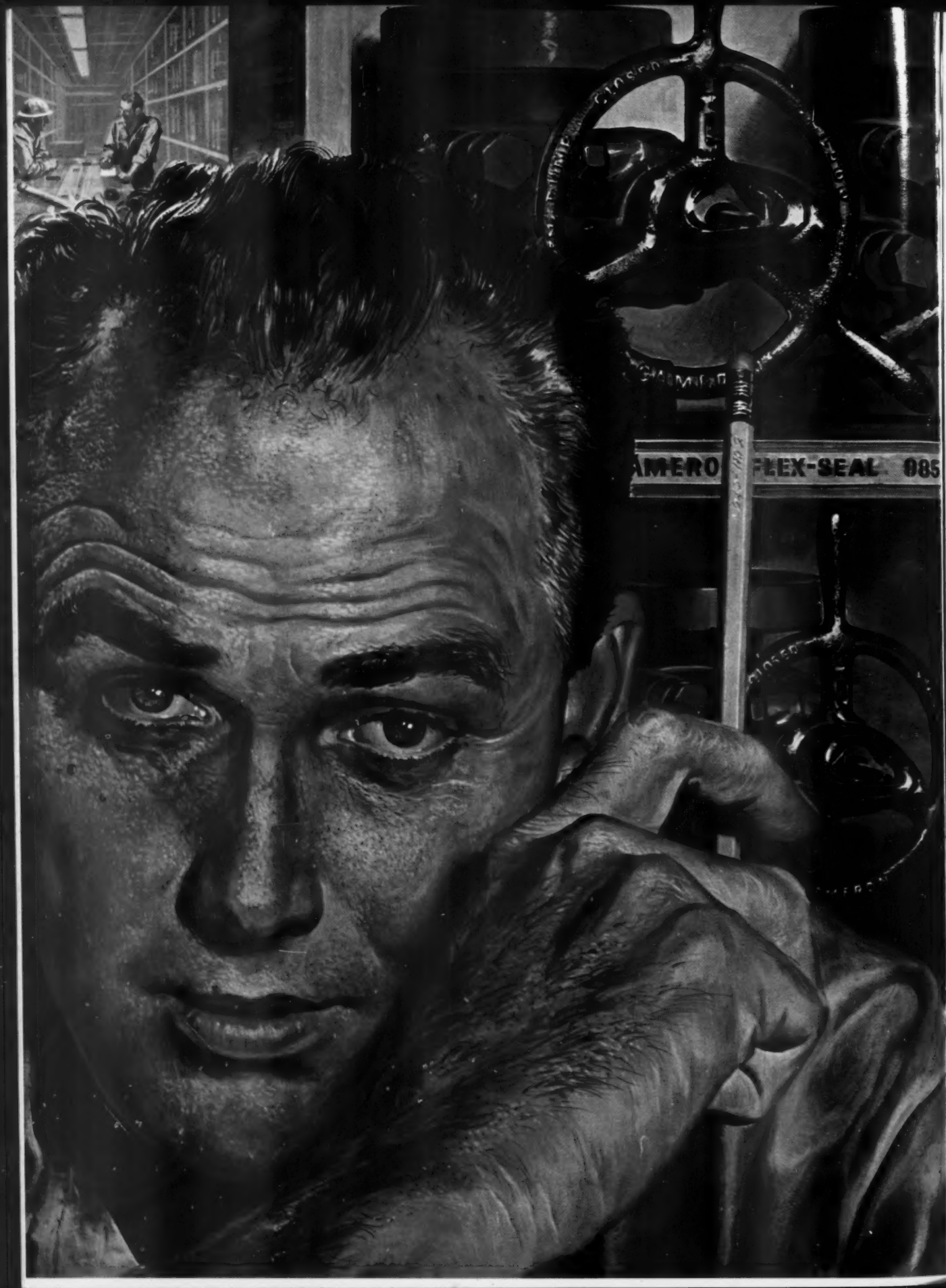
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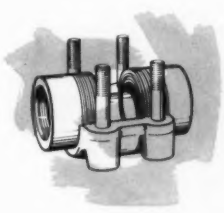
The reason for this remarkable record is Cameron's exclusive design – a basic design which was an immediate success with drillers all over the world. The Cameron Flex-Seal was designed to control the cutting action of abrasive-laden fluid under high pulsating pressure. Over twenty years after its introduction the Flex-Seal is still the favorite of smart operators everywhere – the valve most often asked for in supply stores. Rugged dependability, extra long service, and easy repair spell performance that can't be beat.

Extended cap nuts protect the all important stud threads from abrasion and corrosion, make bonnet removal extra easy in any position. Gate and stem are one solid forging, give perfect alignment with no wobble to increase wear. The only mud valve gate with a shoulder – affords energizing of packer. Rubber cannot flow past on tight closures.



Integral welded subs and body cap make misalignment during repairs impossible. If a sub is damaged it may be separated and replaced rather than replacing an expensive body unit. Tough compound in the big gate packer means lots more wear, easier repairs. Replacements require no special instructions or fixtures — no intricate positioning of gate stem threads. The oversize carburized steel wear rings are sealed against the subs by "O" rings and are removed straight out with the gate packer as a unit.

Flex-Seals are manufactured in the United States, England, and France. They are available in supply stores throughout the world.

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MEMBERS OF THE NEW CATC marine district staff pose in front of the Offshore Oil Center in Morgan City, Louisiana. From left to right are W. W. Cieply, district superintendent, Joe Freeman, geologist, Myrna Cooksley, stenographer, A. C. Autry, district drilling superintendent, Carol Weeks, stenographer, Glenn Shively, district engineer, Wendle Huddleston, material clerk, and Robert L. Richards, clerk.

CATC forms . .

New Marine District

Morgan City office will supervise exploration and production in Eugene Island, Ship Shoal areas

Formation of a new CATC Marine District, with headquarters in Morgan City, Louisiana, has been announced by M. S. Kendrick, manager of Continental Oil Company's Marine Region. The new district office will supervise CATC's exploration and production activities in the Eugene Island and Ship Shoal areas, formerly supervised from district offices at Lake Charles and Harvey, Louisiana.

Conoco is operator for the CATC Group, which also includes Atlantic Refining, Tidewater and Cities Service.

The new district office will be headed by W. W. Cieply, former assistant district superintendent of the Harvey district. Four other promotions were announced for the new marine district.

A. C. Autry, former assistant drilling superintendent of the Harvey district, has been promoted to drilling superintendent at Morgan City.

S. P. Moore, formerly clerk in the Lake Charles district, has been named chief clerk at Morgan City.

Glenn Shively, former senior production engineer at Harvey, has been promoted to district engineer at Morgan City.

William K. Grittman, former geologist at Lake Charles, has been named district geologist for the new district.

Wynn, Tooley Named To W-K-M. Executive Posts

Appointment of Robert O. Wynn as vice president of engineering and research and Henry C. Tooley as vice president of manufacturing of the W-K-M division of ACF Industries, Inc. has been announced.

Wynn, who has been vice president of manufacturing since 1956, spent the previous six years as head of the W-K-M engineering department. He is a graduate of Rice Institute.

Tooley joined W-K-M in May of this year as manager of the Missouri City, Texas plant. Prior to coming with W-K-M, Tooley was executive vice president of Reed Roller Bit

Wilson

Pittman

Wilson Named Vice President Of Shell's Houston Area

J. E. Wilson, acting Houston area exploration manager for Shell Oil Company, has been nominated to succeed E. D. Cumming, vice president of the company's Houston area, when Cumming retires at the end of the year. Wilson joined Shell in 1938 after receiving a degree in geological engineering from Texas A & M College.

Fredrick J. Toth, formerly division manager of Shell's Denver production division, has been named area production superintendent of the company's New Orleans exploration and production area.

J. W. Pittman succeeded K. W. Martin as transport and materials manager in the New Orleans exploration and production area. Martin is now manager of the newly created administrative services department in the company's head office in New York.

Promotions Announced By Continental Oil Company

John G. McLean, elected a vice president of Conoco in 1956, has been promoted from vice president in charge of coordinating and planning to vice president in charge of financial and transportation activities. He is a graduate of the California Institute of Technology, and received his master's degree in business administration and his doctor's degree in commercial science from Harvard University.

L. C. Peters, who joined Continental in 1953 as financial vice president, has been promoted to vice president in charge of coordination and supply. He received his bachelor's degree from Yale University in 1936.

Tennessee Gas Appoints Offshore Operations Manager

S. V. McCollum has joined Tennessee Gas and Oil Company as manager of offshore operations, with headquarters in Lafayette, La.

McCollum, production manager for the CATC group for the past three and one-half years, previously was assistant production manager, southwestern region, for the Continental Oil Company in Fort Worth.

Adams

McCollum

New Production Manager For CATC Marine Region

R. L. Adams has been named manager of production for Continental Oil Company's CATC marine region, with headquarters in Houston. He succeeds S. V. McCollum, who recently resigned to become manager of offshore operations for Tennessee Gas and Oil Company.

Adams, who joined Conoco in 1946 as a roustabout, was graduated from Texas A & M College in 1941 with a degree in petroleum engineering.

Changes Announced By Standard Oil Of Texas

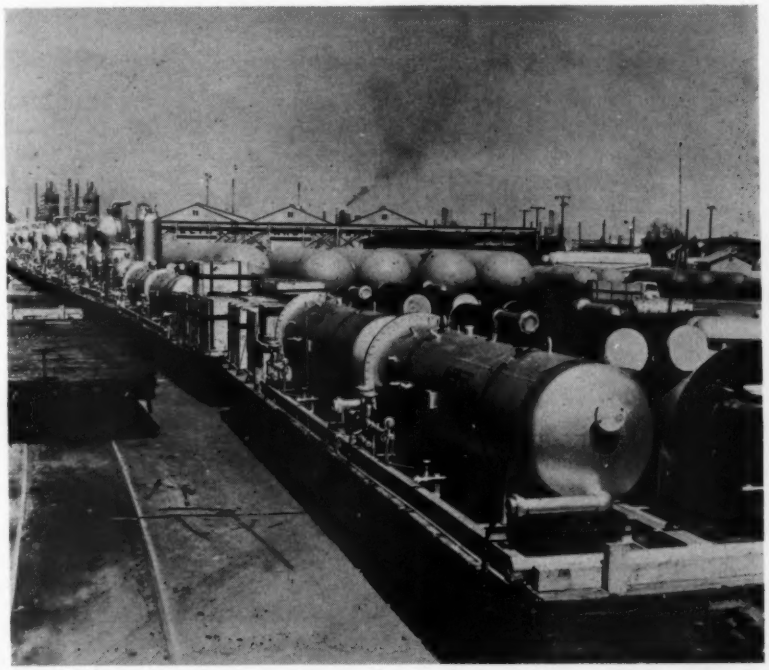
E. H. Burtner has been named assistant to the vice president, exploration, of Standard Oil Company of Texas, with headquarters in Houston.

W. P. Winham replaces Burtner as assistant to the general manager, exploration, Western Operations, Inc.

M. W. Wolf succeeds Winham as division superintendent, great basin division, exploration department.

Replacing Wolf, E. G. Dobrick becomes division superintendent, Pacific Northwest division, exploration department.

J. E. McCall replaces Dobrick as chief geophysicist, exploration department.



THE INTERNATIONAL SCENE—An indication of the petroleum industry's current overseas expansion may be drawn from this trainload of oilfield equipment shown leaving Delta Tank Manufacturing Company's Baton Rouge, Louisiana plant on first leg of trip to South American producing fields. Equipment includes heaters and low temperature separation units.

Business in Venezuela?

Fly NON-STOP to MARACAIBO CARACAS

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Desk & Derrick Girls At Sea

Zapata hosts Houston chapter aboard drill barge "Scorpion"

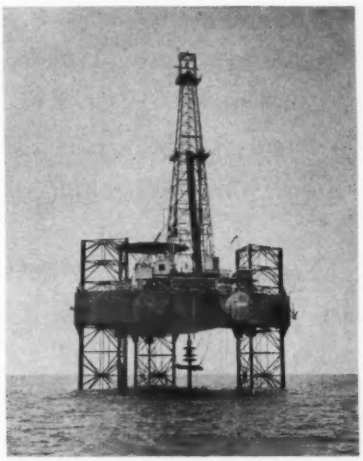
The bevy of pretty secretaries pictured on this page are having the time of their lives.

The occasion was a sea trip to the drill barge **Scorpion**—drilling on a Standard of Texas lease 27 miles out in the Gulf of Mexico from Galveston. Zapata Off-Shore Company invited the Houston chapter of the Desk & Derrick Club to tour the rig. With girls from the Zapata home office—Billie Jackson, Alice Ferrell, Vivian Flynn and Bobbie Bryant—serving as hostesses, the group rode the supply boat **M.E.L. 1** out to the location, and were given an intimate view of a marine rig in action.

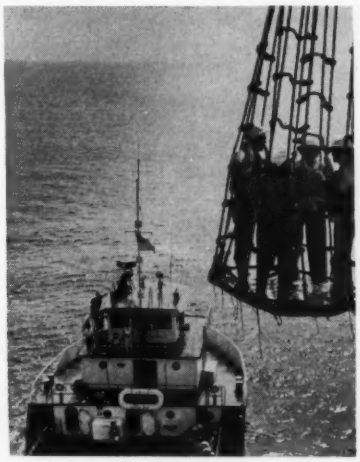
Universal Services—caterers aboard the rig—served the group an excellent buffet, and Photographer Art Meyer went along to record the trip pictorially.

All in all, it was a memorable and unusual event.

EN ROUTE TO AN OFFSHORE RIG are these members of the Houston Chapter of the Desk & Derrick Club. Girls are making the field trip as guests of Zapata Off-Shore Company.



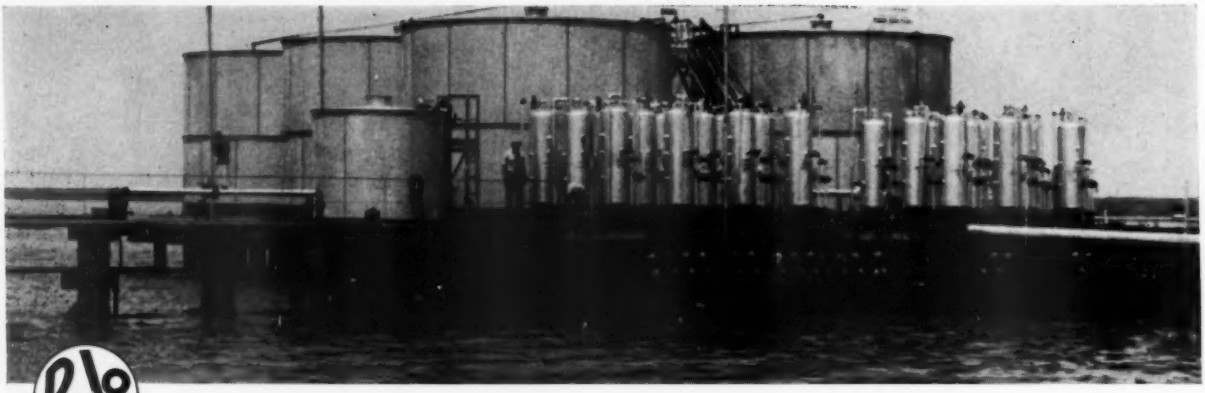
RIG THEY VISITED was the drill barge SCORPION, on location 27 miles out in the Gulf of Mexico from Galveston.



PERSONNEL BASKET whisks group, four at a time, from deck of supply boat aboard the towering drill barge.

SUMPTUOUS BUFFET was prepared for group by Universal Services of Texas, caterers aboard the SCORPION.

HOSTESSES FOR GROUP are girls from Zapata home office, shown with Toolpusher Carl Johnson. They are, from left to right, Alice Ferrell, Billie Jackson, Vivian Flynn and Bobbie Bryant.



Metering separators really pay off on production platforms!

Rolo Metering Separators occupy no more platform space than ordinary separators; they quickly pay their way by providing continuous metering of each well's production, and by permitting commingling and savings in tankage. Trouble at any well can be rapidly pinpointed, and production data is always current.

Rolo Metering Separators have minimum moving parts: one pilot, one valve; operation without attention is especially important on platforms. Let Rolo serve your next platform.

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Flash-Type and Submerged-Tube Salt Water Distilling Plants for land-based and shipboard applications.

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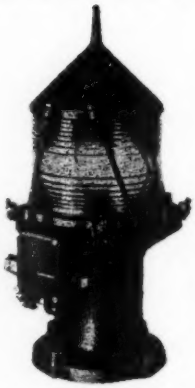

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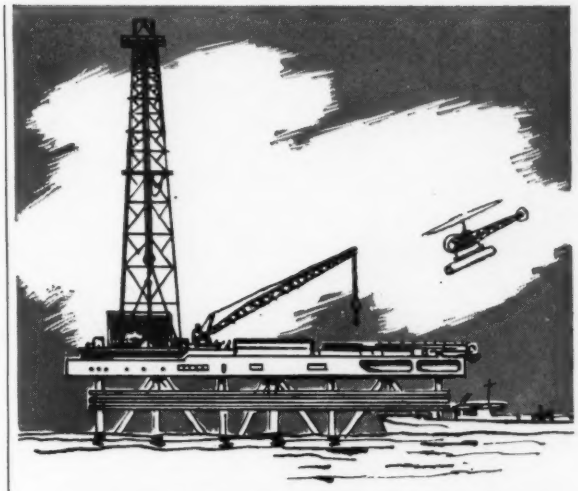
Mobile Units, Tenders, And Self-Contained Platforms Gulf Coast Area

OWNER	NAME	WATER DEPTH	PRESENT STATUS
Barnwell Offshore, Inc. Self-elevating 176′ x 176′ x 152′ with three 145′ legs	"Mister Cap"	to 100′	Drilling for Sinclair-Sohio, Block 190, Eugene Island
Blue Water Drilling Corp. Submersible	Rig No. 1	70′	Drilling for Shell Oil Co., Block 128, Eugene Island Area
The California Company Submersible 11′ x 90′ x 156′ with four 3′ x 10′ x 35′ pontoons	S-45	18′	Bay Marchand, Louisiana
The California Company Submersible 12′ x 90′ x 190′, with four 4′ x 24′ x 50′ pontoons	S-55	45′	Bay Marchand, Louisiana, Noble Drilling Co.
Continental Marine Exploration Co. Submersible 230′ x 99′ with 54′ between fixed hulls	"M & H Drilling Platform No. 12"	to 30′	Drilling for Tennessee Gas, Block 17, East Cameron Area
Coral Drilling Company Submersible 180′ x 151′ x 84′ with four pontoons	"Mr. Arthur"	to 70′	Drilling for California Co., Block 68, Vermilion
Deepwater Exploration Co. Self-elevating overall 121′ x 118′	"Deepwater No. 2"		Completely salvaged unit at LeTourneau, Vicksburg yard
Delta Marine Drilling Co. Submersible	"Chris Zeppa"	to 35′	Drilling for Gulf Oil Corp. Block 24, West Delta
Dixilyn Drilling Corp. Self-elevating 194′ x 152′ overall. Three 175′ legs	"Julie Ann"	to 105′	Drilling for Shell Oil Co., Block 192, Eugene Island Area
Global Marine Exploration Co. Floating vessel	Cuss I	600′	Drilling for Texaco, Inc., California, Parcel D
Global Marine Exploration Co. Floating vessel	Submarex	600′	Special project for U. S. Steel Co., Lake Michigan
Gulf Marine Drilling, Inc. Submersible	Rig No. 1	35′	Drilling for Gulf Oil Corp., Block 24, West Delta, Well No. 1
Hyperion Constructors Self-elevating	"George F. Ferris"	90′	Los Angeles, Calif., Stacked
Kerr-McGee Oil Ind., Inc. Submersible 13′ x 54′ x 160′ with two 13′ x 14′ x 110′ pontoons	Rig 40	to 22′	Drilling for Pure Oil Co., Block 3, West Cameron Area
Kerr-McGee Oil Ind., Inc. Submersible 13½′ x 72′ x 140′ with two 13½′ x 13½′ x 140′ pontoons	Rig 44	to 40′	Drilling for self, et al, Block 31, Ship Shoal Area
Kerr-McGee Oil Ind., Inc. Submersible 142′ x 69′ x 13′6″, with two 10′ x 11′ x 146′ pontoons	Rig 45	to 35′	Drilling for Tennessee Gas & Oil Co., Block 5, Bay Marchand Area
Kerr-McGee Oil Ind., Inc. Submersible	Rig 46	to 70′	Drilling for Gulf Oil Corp., Block 148, Ship Shoal Area
Kerr-McGee Oil Ind., Inc. Submersible	Rig 47	to 70′	Drilling for Gulf Oil Corp., Block 21, South Timbalier Area
Long Point Gas & Oil Ltd.	Translake No. 1	35′	Drilling for Self, Lake Erie
Long Point Gas & Oil Ltd.	Translake No. 2	40′	Drilling for Self, Lake Erie
Louisiana-Delta Offshore Corp. Submersible 180′ x 151′ x 12′	Drill Barge Louisiana	to 65′	Drilling for Shell Oil Co. East Bay



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OWNER	NAME	WATER DEPTH	PRESENT STATUS
Louisiana-Delta Offshore Corp. Submersible 156′ x 90′	Drill Barge Delta	to 25′	Drilling for Shell, Eugene Island Area
Magnolia Petroleum Co.	Rig 52	24′	Drilling for self, Main Pass Area
Midcon Oil & Gas Co., Ltd. Cable tool	Midcon No. 1	90′	Drilling for self, Lake Erie
Movible Offshore Co. Submersible 200′ x 146′ x 67′	"Movible No. 3"	to 45′	Drilling for Texaco, State Tract 226-S, Offshore Galveston, Texas
Movible Offshore Co. Submersible 201′ x 211′ x 110′	"Movible No. 2"	to 80′	Drilling for Magnolia Petroleum Co., Block 125, Eugene Island Area
New York State Natural Gas Corp. Cable tool	Argonyn I	48′	Drilling for self, Lake Erie
Noble Barge Co. Twin-hull submersible 217′ x 100′	"Lloyd Noble S-66"	to 100′	Being built at Avondale Marine Ways
Ocean Drilling & Exploration Company Submersible 200′ x 300′ x 98′	"El Dorado"	to 70′	Drilling for CIMA, Gulf of Campeche, Mexico
Ocean Drilling & Exploration Company Submersible 132′ x 220′ x 58′	"Mr. Charlie"	40′	Drilling for Magnolia Petroleum Co., Eugene Island Area
Ocean Drilling & Exploration Company Submersible 120′ x 180′ x 49′	"John Hayward"	30′	Drilling for California Co., self, et al, Block 93, Eugene Island Area
Ocean Drilling & Exploration Company Submersible 200′ x 300′ x 93′	"Margaret"	to 60′	Drilling for Shell Oil Co., Block 27, South Pass Area
Ocean Drilling & Exploration Company Submersible 120′ x 180′ x 50′	"St. Louis"	30′	Drilling for Self and Midwest Oil Corp., Block 90, Eugene Island Area
The Offshore Company Self-elevating 81½′ x 70′ x 203′ with twelve 6′ dia. caissons	Mobile Unit No. 51		Bayou Boeuf, Louisiana
The Offshore Company Self-elevating 131½′ x 117′ x 220′ with fourteen 6′ dia. caissons	Mobile Unit No. 52	100′	Drilling for Magnolia Petroleum Co., Block 129, Eugene Island Area
The Offshore Company Submersible 12′ x 74′ x 200′ with four 6′ dia. caissons	Mobile Unit No. 53	35′	Drilling for Union Oil of Calif., Block 35, Vermilion Area
The Offshore Company Self-elevating 200′ x 104′ x 15′ with eight 12′ dia. towers	Mobile Unit No. 54	100′	Drilling for Texaco and Pan Am., Block 215, Eugene Island Area
The Offshore Company Self-elevating 200′ x 104′ x 15′ with eight 12′ dia. towers	Mobile Unit No. 55	100′	Trinidad, Gulf of Paria
Penrod Drilling Company Submersible 196′ x 108′	Rig 50	44′	Drilling for Hunt Oil Co., Eugene Island Area
Penrod Drilling Company Submersible 150′ x 190′	Rig 51	to 70′	Drilling for Calco, Bay Marchand Area
Penrod Drilling Company Submersible 198′ x 174′	Rig 52	100′	Drilling for California Co., East Cameron Area
Place Gas & Oil Co., Ltd.	Mr. Cliff	42′	Drilling for self, Lake Erie
Place Gas & Oil Co., Ltd.	Barge 1		Under Construction
Place Gas & Oil Co., Ltd.	Barge 2		Under Construction
Reading & Bates Offshore Drilling Company Self-elevating	"C. E. Thornton"	to 110′	Drilling for Arabian Oil Co., Persian Gulf

OWNER	NAME	WATER DEPTH	PRESENT STATUS
Rimrock Tidelands, Inc. Submersible	"Rimtide"	35'	Drilling for Shell Oil Co., Block 17, East Cameron Area
Sea Drilling Corp. Submersible	"Seadrill 2"	30'	Drilling for Humble Oil and Refining Corp., Block 13, Vermilion Area
Sea Drilling Corp.	"Seadrill 3"	30'	Stacked
Southeastern Drilling Corp. Submersible 11' x 90' x 156' with four pontoons	Rig 22, Barge 8		Drilling for Sinclair Oil and Gas Co., Block 15, South Timbalier Area
Standard Oil Co. of Calif.	Western Explorer	200'	California, stacked
Tidelands Drilling Co. Self-elevating Deck 258' x 104', pad 200' x 180' with four 10' dia. columns	"Mr. Gus II"	150'	Drilling for CATC, Grand Isle, Block 40
Union Producing Co. Submersible 160' x 190'	Barge A	to 76'	On location in Block 128, Field, Eugene Island Area
Universal Drilling Company Self-elevating	"Mr. Louie"	to 130'	Being outfitted in New Orleans
Zapata Off-Shore Company Self-elevating. 194' x 152' overall. Three 145' legs	"Vinegaroon"	to 80'	Drilling for Self, et al, 104 Vermilion Area
Zapata Off-Shore Company Self-elevating. 20' x 80' x 140', with three triangular legs	"Scorpion"	80'	Drilling Federal Block 52, Grand Prize Area
Zapata Off-Shore Co. Floating drill barge	"Nola 1"		Outfitting for tow to Venezuela
Zapata Off-Shore Co. Floating drill barge	"Nola 2"		Outfitting for tow to Mexico
Zapata Off-Shore Co. Floating drill barge	"Nola 3"		Outfitting for Gulf of Mexico

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Drilling Tenders

An-Son Offshore Drilling Co.	"Carl B. Anderson"		Drilling for CATC
An-Son Offshore Drilling Co.	"Deepwater No. 1"		Drilling for Humble in Block 54, South Timbalier Area
The California Company Converted LST, 328' x 50'	S-21	25'	Bay Marchand, Louisiana, Calco
The California Company Converted LST, 328' x 50'	S-22	49'	Bay Marchand, Louisiana, Calco
The California Company Converted LST, 328' x 50'	S-23		Mothballed
The California Company LST, 328' x 50'	S-24	46'	Bay Marchand, Louisiana, Calco
The California Company LST, 328' x 50'	S-25	48'	Bay Marchand, Louisiana, Calco
The California Company LST, 328' x 50'	S-26	40'	West Delta, Louisiana, Noble Drilling Co.
Coastal-Marine Drilling and Construction Corp. New tender, 272' x 56'	Howard S. Cole Jr. Coastal-Mariner No. 1		Sold to Pan American International for use in Persian Gulf
CATC Group New tender, 260' x 54'	"J. C. Craig"	90'	Drilling in Block 208, Eugene Island Area for self
CATC Group New tender, 260' x 54'	"Carle Sharp"	101'	Ship Shoal, Block 199
CATC Group New tender, 260' x 54'	"Ernie Miller"	50'	West Delta, Block 45
CATC Group New tender, 260' x 54'	"Jack Cleverley"		Drydock
Deepwater Exploration Co. Converted LST, 328' x 50'	"Deepwater No. 1"		Preparing to go to Block 54, Vermilion Bay, for Humble
Delta Marine Drilling Co. Converted LST, 326' x 50'	"Joseph Zeppa"		Stacked
Gulf Oil Corporation New tender	"Dolphin"		Completely placed in moth ball fleet at Orange, Tex., engines pickled, and rig stacked

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OWNER	NAME	WATER DEPTH	PRESENT STATUS
Gulf Oil Corporation Converted LST, 328′ x 50′	"Eagle"		Rig stacked at Morgan City, Louisiana
Gulf Oil Corporation New tender, 272′ x 60′	"Pelican"		Block 132, S. Timbalier area, self
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-1		Standing by
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-2		Standing by
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-3		Standing by
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-4		Standing by
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-5		At Orange, Texas for storage
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-6		Standing by
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-7		Standing by
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-8		Standing by
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-9		Standing by
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-10		Standing by
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-11		Standing by
Humble Oil & Refining Co Converted LST, 328′ x 50′	ST-12		"Q" Platform in West Delta, Block 30 field
Kerr-McGee Oil Ind. Inc. New Tender, 250′ x 50′	"Kermac II" Rig 43		Idle
Kerr-McGee Oil Ind. Inc. New Tender, 250′ x 50′	"Kermac III" Rig 48		Drilling for CATC Block 124, Vermilion
Kerr-McGee Oil Ind., Inc. Converted YF, 260′ x 48′	"Frank Phillips" Rig 39		Idle
Liano Drilling Company New tender, 260′ x 54′	"Clayton G. Dorn"		Under bareboat charter to Reading & Bates Offshore Drilling Co.
Magnolia Petroleum Co. Converted YF	"Gulf Coast Barge No. 2"		Out of Service
MCN Group Converted YF	MDT-1		Drilling in Block 128, Eugene Island Area, Well E-1, for self
MCN Group Converted YF	MDT-2		Out of Service
MCN Group Converted YF	MDT-3		Out of Service
MCN Group Converted YF	MDT-4		Out of Service
MCN Group Converted YF	MDT-7		Out of Service

OWNER	NAME	WATER DEPTH	PRESENT STATUS
Pan American Petroleum Corp. Converted LST, 328' x 50'	"Pan American 50"		Orange, Texas
Reading & Bates Offshore Drilling Company	"J. C. Craig"		Drilling in Block 208, Eugene Island Area for CATC
Reading & Bates Offshore Drilling Company	"J. W. Bates"	102'	Drilling in Persian Gulf for Arabian Oil
Reading & Bates Offshore Drilling Company	"George M. Reading	71'	Orange, Texas, waiting on location
Reading & Bates Offshore Drilling Company	"Clayton G. Dorn"		Drilling in Block 208, Eugene Island Area for CATC
Southeastern Drilling Corp. Converted YF	Rig 12 Barge 9		Shut down, Industrial Canal, New Orleans

Self-Contained Platforms

COMPANY	DESCRIPTION	YEAR BUILT	LOCATION	WATER DEPTH
CATC Group			Block 58, West Delta Area, Shoreline Drilling Co.	
CATC Group	110' x 146'	1956	Block 45, West Delta	50'
CATC Group	110' x 146'	1957	Block 47, Grand Isle	88'
Freeport Sulphur Co.			Block 9, Grand Isle, Self	45'
Gulf Marine Drilling, Inc. Rig #2			Bayou Bouef, awaiting location	
Gulf Oil Corporation	40' x 100'	1957	Rig Stacked at Morgan City, La.	
Humble Oil & Refg. Co. Rig #50	78' x 200'	1956	Block 16 Field, "L" Platform, Grand Isle Area	50'
Humble Oil & Refg. Co. Rig #54		1958	"Q" Platform, West Delta Block 30 field	
J. Ray McDermott			Block 46, Vermilion Area, The Offshore Co.	
J. Ray McDermott			Block 68, West Cameron Area, The Offshore Co.	
Phillips Petroleum Co.	88'9" x 140'	1957	Block 129-A, Eugene Island Area, platform inactive	52'
Phillips Petroleum Co.	88'9" x 140'	1956	Block 191, Eugene Island Area, platform inactive	81'
Phillips Petroleum Co.	88'9" x 140'	1957	Block 129, Eugene Island Area, platform inactive	57'
Pure Oil Company Converted LST	328' x 50'	1958	Orange, Texas	
Pure Oil Company	52' x 106 with 51' x 82' pipe rack	1957	Block 126, E. Cameron Area	72'
Shell Oil Company	55' x 110'	1958	Block 176, Eugene Island Area, Platform inactive	86'
The Superior Oil Co.	96' x 225'		Block 168, West Cameron Area	
Union Oil Co. of California			B-1, Block 76, Vermillion Area, Southeastern Drilling Corp., Rig 7	

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Attapulgite As A Drilling Clay

By ARTHUR I. COYLE
Technical Director of Drilling Mud Sales
Minerals & Chemicals Corporation of America

It is the purpose of this article to compare fundamental behavior of the two most widely used drilling clay materials. Presented for the first time are comparisons of the true effects which common mud contaminants have on viscosity, yield, and filtration properties of bentonite and attapulgite dispersions. This article also serves to introduce a vastly improved attapulgite product of Minerals and Chemicals, Attapulgus Drilling Clay, which will open up new opportunities for better muds and lower drilling costs.

Introduction . . . Years ago, when oil well drillers switched from cable tool to rotary drilling methods, they had no recourse but to use water suspensions of bentonitic clays for preventing hole sloughing. The addition of commercial bentonites to clay suspensions made up of formation solids gave lower water loss than could normally be obtained with muds containing formation solids alone. Tremendous quantities of high-swelling Wyoming bentonite have been used for this purpose.

In many places, the grinding action of the drill bit and the rotations of the drill pipe break down the formation solid to form clay-water suspensions. Some of the formation shales are bentonitic in nature, and behave similarly to the commercial bentonites in adding colloidal properties to drilling muds. In areas such as the Mid-Continent and Rocky Mountain regions, commonly called "hardrock country," the formations usually are not mud-making and the entire mud system must be prepared from commercial clay-water suspensions.

Chemical treatment . . . Costly chemical treatment is required for bentonite muds when drilling through contaminated formations.

"New information is causing a closer look at the fundamental behavior of the two most widely used drilling clay materias"

In fact, since the adoption of rotary drilling, millions of dollars have been spent to stabilize or control bentonite clay-water suspensions. Many treatment methods have been developed to make bentonitic shale or commercial bentonite muds more effective when the contaminating salts of Na, Ca and Mg are encountered. They include phosphate, red muds (low and high pH), lime base muds.

Even though more effective synthetic water-loss reducing compounds have been developed for fluid-loss control, the habit of using trouble-

Colloidal Properties of Clays and Shales

Colloidal clays and shales may be divided into two general types according to their action when suspended in water. The suspensoids or hydrophobic colloids have little affinity for water and form a stable suspension only if the individual particle charge is sufficiently high to prevent coagulation. Such colloids do not swell in water. The emulsoid or hydrophilic colloids, on the other hand, have a strong affinity for water. Each emulsoid particle "hydrates" or sheaths itself in a protective film of water molecules, and a noticeable swelling of clay particles results. The bentonitic-clay colloids belong to this latter class, and most of the common mud troubles are caused by undesirable reactions involving these clay colloids. The bentonitic clays and shales are micaceous in structure; that is, the individual clay particles are thin flat sheets, stacked in mica-like layers. Due to the internal structure, these sheets have a negative charge which is neutralized by base exchange cations such as Na^+ and Ca^{++}. In the dry bentonite, the negative sheets are held together by the positive cations. Water molecules can penetrate between the sheets and spread them apart. The swelling of the clay that results from this penetration can be quite large when the cation is sodium, as in the Wyoming bentonite, but is quite small when cations such as calcium or magnesium are present, or when a high concentration of any salt, such as sodium chloride, is present. As a result of the dependence of swelling on the cations present and the salt concentration, bentonite drilling mud clay (sodium bentonite) gives a relatively high viscosity in fresh water, but is quite ineffective in yielding or maintaining viscosity in water contaminated with the ions that prevent swelling.

some commercial bentonite still persists with many drillers. Commercial bentonite muds are still used in the so-called hardrock areas. True, in many places low water loss is not essential, except when certain producing zones do not tolerate filtrate water; but the hardrock formations are contaminated with salt, calcium sulfate and magnesium sulfate, and chemical treatment must be restored to.

Thick contaminated formation sections bearing salts for Na, Ca and Mg are very expensive to drill through when using bentonite muds. Calcium sulfate and magnesium sulfate at first produce very high viscosity in a bentonite mud, but then, after circulating for some time, very low viscosities develop. Calcium and magnesium dehydration action on the bentonite causes the clay to coagulate and precipitate out of suspension as calcium and magnesium bentonite. The low viscosities of calcium and magnesium bentonite muds necessitate the continual addition of fresh sodium bentonite in order to maintain satisfactory viscosity. This often produces solids content of the mud suspensions as high as 30 percent by volume.

A satisfactory fluid loss is impossiable to obtain in a bentonite mud which has been thoroughly contaminated with the salts of Na, Ca and Mg without resorting to the addition of organic water loss reducing reagents such as starch or CMC. Calcium can be treated out of a calcium-contaminated mud to form insoluble precipitates with soda ash or barium carbonite. This will prove to be quite an expensive operation as when drilling through massive anhydrite sections. Raising the pH of a mud to 9.5 or higher will prevent magnesium troubles because the magnesium is converted to MgOH which is insoluble. In any case the required treatment adds to the mud cost.

Expensive lime base mud systems have been in use for a number of years, mostly on the Gulf Coast of Texas and Louisiana. These muds tend to solidify at the high temperature conditions normally encountered in deep drilling in these areas. Lime base muds are especially troublesome when left above production packers in the high temperature producing zones. Expensive wash-over jobs may be required before the tubing and packer can be pulled for workover.

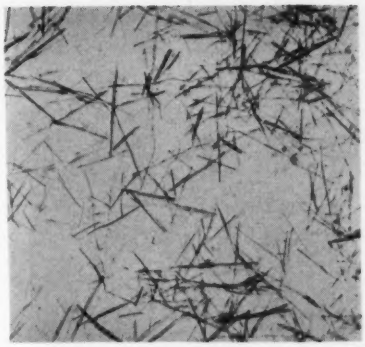


FIGURE 1—Physical structure of attapulgite as shown in electron micrograph (35,000X). Particles are actually "brush heaps" of submicronic, needle-like crystals.

It has been established in recent years that a low weight-low solids mud will give faster bit penetration rates. Low solids muds are best made up by adding only the highest-yield clay available. The clay must tolerate contamination without yield reduction; otherwise, excessive clay solids will be needed in order to obtain sufficient viscosity for removing bit cuttings from the well bore.

Bentonite clay can be used only with the help of expensive chemical treatment for low solids muds in areas where contaminating ions are encountered by the drill bit.

Advantages Of Attapulgite

In recent years, specially processed attapulgite has been used in increasing amounts as a component for oil well drilling muds. This clay is particularly adaptable for salt water, gyp, and high temperature muds because the colloidal properties of the clay are not appreciably affected by salt or other electrolytes, or by elevated temperatures.

Attapulgus Drilling Clay is processed from the mineral attapulgite, a very specific grade of fullers earth. Research and development work has

(*Continued on next page*)

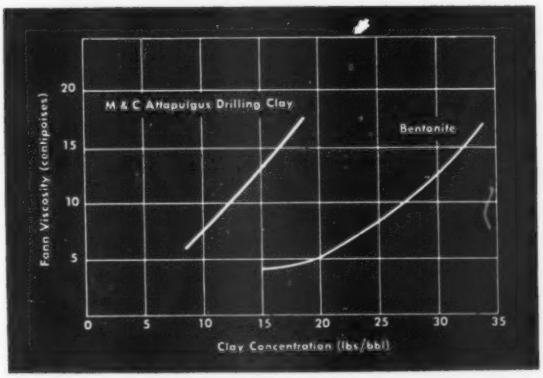


FIGURE 2—Viscosity comparison curves, attapulgite drilling clay and bentonite in saturated gyp solution.

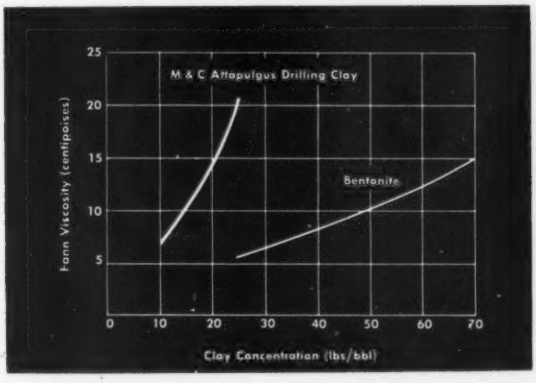


FIGURE 3—Viscosity comparison curves, attapulgite drilling clay and bentonite in saturated $CaCl_2$ solution.

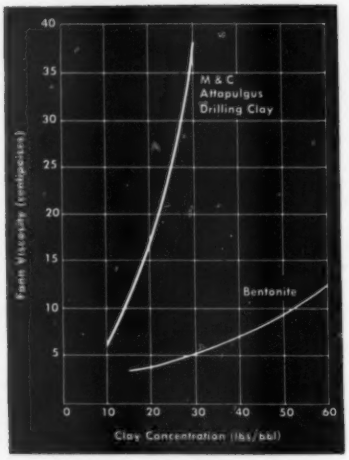


FIGURE 4—Viscosity comparison curves, attapulgite drilling clay and bentonite in saturated salt solution.

Attapulgite . . .

(*Continued from preceding page*)

following competitive performance characteristics:

1) Highest yield—barrels of drilling mud per ton of clay—in so far resulted in an improved Attalupgus Drilling Clay having the salt and gyp systems.

2) Highest yield in fresh water systems.

3) Greatest stability in salt, gyp or other contaminated systems.

4) Best high temperature stability.

On an in-use-cost basis this improved Attapulgus Drilling Clay outperforms all other drilling clays for fresh-salt, gyp or high temperature mud systems.

THE AUTHOR

Arthur I. Coyle has had over 25 years of experience in the petroleum and chemical industries. First associated with the drilling industry, he later became a mud engineer and did extensive development work on new products for the drilling mud industry. His work in this field, for various major chemical companies, has carried him into most of the oil provinces of the United States and Canada.

Mr. Coyle is now technical director of drilling mud sales for Minerals & Chemicals Corporation of America. He is 46 years of age, married, and resides at 1733 Althea Drive in Houston, Texas. He is a member of AIME.

Comparative Yields Of Attapulgite And Bentonite

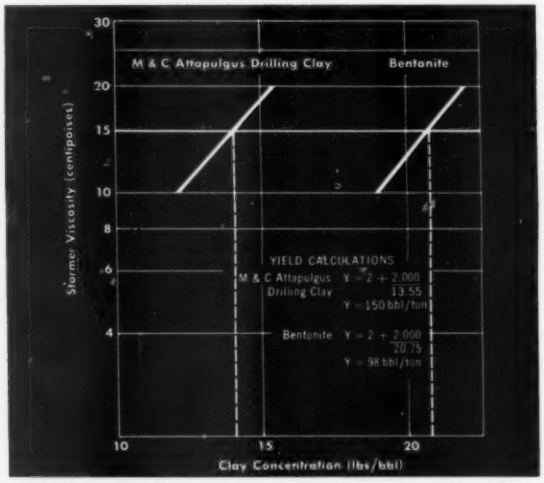

M & C Attapulgus Drilling Clay
Bentonite
Stormer Viscosity (centipoises)
YIELD CALCULATIONS
M & C Attapulgus Drilling Clay Y = 2 + 2,000 / 13.55 Y = 150 bbl/ton
Bentonite Y = 2 + 2,000 / 20.75 Y = 98 bbl/ton
Clay Concentration (lbs/bbl)

FIGURE 5—API yield comparison curves, attapulgite drilling clay and bentonite in fresh water.

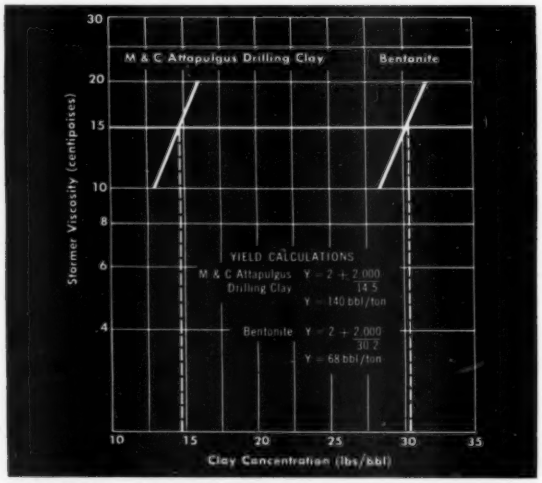

M & C Attapulgus Drilling Clay
Bentonite
Stormer Viscosity (centipoises)
YIELD CALCULATIONS
M & C Attapulgus Drilling Clay Y = 2 + 2,000 / 14.5 Y = 140 bbl/ton
Bentonite Y = 2 + 2,000 / 30.2 Y = 68 bbl/ton
Clay Concentration (lbs/bbl)

FIGURE 6—API yield comparison curves, attapulgite drilling clay and bentonite in saturated gyp solution.

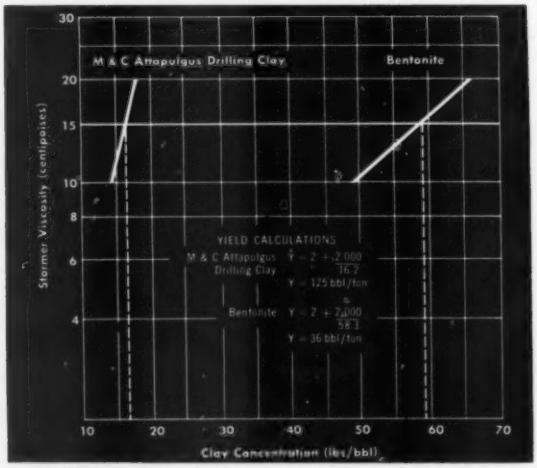

M & C Attapulgus Drilling Clay
Bentonite
Stormer Viscosity (centipoises)
YIELD CALCULATIONS
M & C Attapulgus Drilling Clay Y = 2 + 2,000 / 16.7 Y = 125 bbl/ton
Bentonite Y = 2 + 2,000 / 58.3 Y = 36 bbl/ton
Clay Concentration (lbs/bbl)

FIGURE 8—API yield comparison curves, attapulgite drilling clay and bentonite in saturated $CaCl_2$ solution.

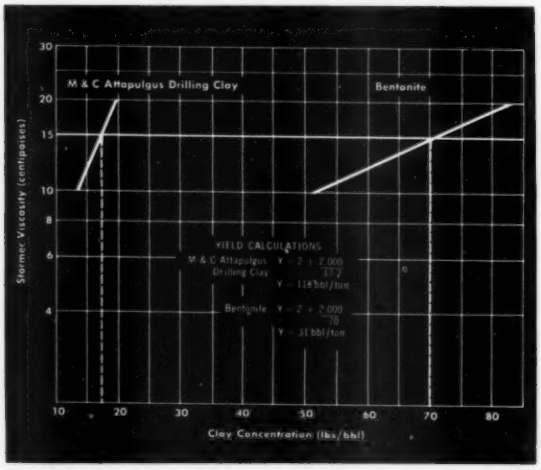
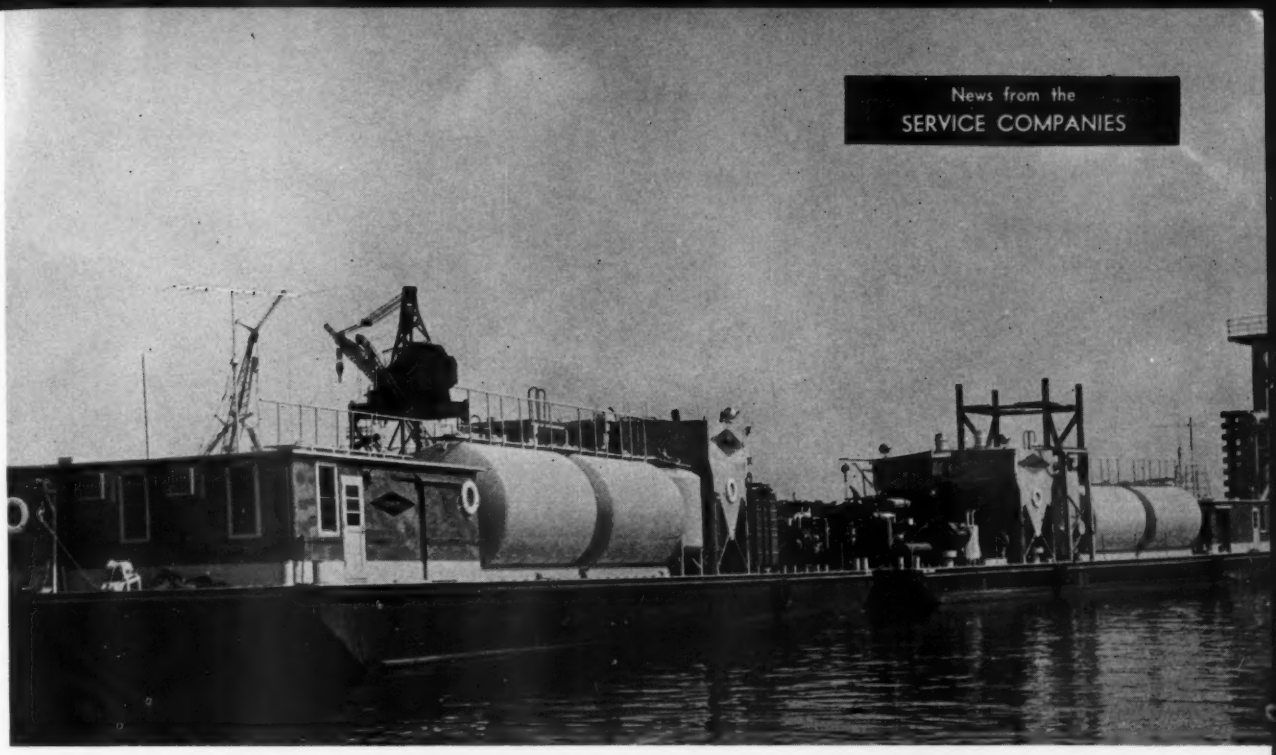

M & C Attapulgus Drilling Clay
Bentonite
Stormer Viscosity (centipoises)
YIELD CALCULATIONS
M & C Attapulgus Drilling Clay Y = 2 + 2,000 / 17.7 Y = 113 bbl/ton
Bentonite Y = 2 + 2,000 / 70 Y = 31 bbl/ton
Clay Concentration (lbs/bbl)

FIGURE 7—API yield comparison curves, attapulgite drilling clay and bentonite in saturated salt solution.



NEW SERVICE BARGES built for Dowell by McDermott Fabricators will provide cementing and pumping services for oil operators in the Louisiana Gulf Coast area.

In South Louisiana . . .

Dowell Adds Service Barges

Units will provide cementing, pumping services for operators in the Terrebonne and Timbalier Bay areas

Two new cementing and service barges—the **Mr. John** and **Mr. Carl**—have been placed in service in South Louisiana's inland marine oil fields by the Dowell Division of The Dow Chemical Company.

Built by McDermott Fabricators at the company's Bayou Boeuf yards, near Morgan City, each barge measures 120-ft. long by 30-ft. wide by 7-ft. deep, and is equipped with air-conditioned living quarters and galley for a permanent 3-man crew.

Cementing service . . . Each of the barges is a complete waterborne cementing unit, carrying its own cement in four bulk storage tanks with a combined capacity of 4,000 cu. ft. Dry cement controlled blending equipment is part of the bulk cement storage system, and there are two blended cement bins on each barge that provide storage for 1,200 sacks of dry, blended cement.

Each barge has the latest type of air slides and pumps for handling dry cement. The dry cement is pumped from storage to the weigh batcher-blender and slurry mixer by a pneumatic system. There is also a bucket-type elevator for transferring dry addition agents to the dry cement weigh batcher-blender.

Densitometers . . . Each of the barges is equipped with a Dowell-designed densitometer, which records the density of the cement slurry electronically as it is delivered from the blender tank to the cementing pumps. This provides the operator with a continuous record of the slurry weight as it is being delivered to the well. When desired, the slurry weight can be changed during the cement job by a single adjustment from the operator's control panel.

Chemical treatment . . . In addition to cement storage tanks, each barge is equipped with a 2,000-gal. acid storage tank to provide for chemical treatment in conjunction with cement jobs.

High-pressure pumps . . . Dowell-designed 4-½-in. by 8-in. triplex pumps are standard on both barges. These high-pressure pumps are powered by twin GM 308 hydraulic hp diesels through torque converters and transmissions. The transmissions are operated pneumatically from the operator's control panel.

Major controls . . . All major controls for handling the barge equipment is air operated. They are centrally located on a platform where the operator can observe and control all operations with a maximum of efficiency.

Leased tugs will be used to move the new barges. A third barge, now under construction, will be used only to transport bulk cement.

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Kaffie Lumber & Barites, Inc., of Corpus Christi, is putting into service a series of these bulk mud transports equipped with Halliburton Oil Well Cementing Company's pneumatic handling system.

Halliburton Pneumatic Mud Transports Purchased By Kaffie Bulk Barites

Fleet will speed delivery from Kaffie's 22 yards along lower Texas Gulf Coast and Rio Grande Valley

Halliburton Oil Well Cementing Company is delivering a fleet of truck transports equipped with Halliburton pneumatic bulk material handling systems to a major Gulf Coast mud marketer, Kaffie Lumber & Barites, Inc. of Corpus Christi, Texas.

This is the first sale of Halliburton pneumatic bulk transports for over-the-road hauling and wellsite pneumatic delivery of bulk muds. The trucks and semi-trailers equipped with the same pneumatic system are replacing conventional mechanical and hydraulic bulk handling systems. The reasons given include:

Full capacity delivery . . . The system completely empties the pressure vessel of its contents and also minimizes contamination problems.

High delivery rate . . . of 25 or more sacks per minute.

Virtually no maintenance . . . because there are no moving parts.

Extreme flexibility . . . in discharging material to any height storage plus simplified hose discharge especially useful at difficult locations.

Finely divided dry materials . . . can be handled by the system in addition to many pelletized materials.

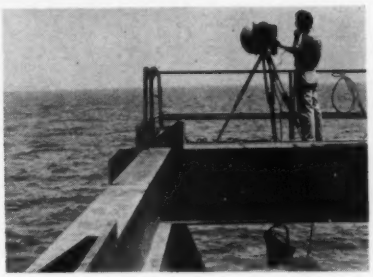
According to Glenn Pate, manager of Kaffie's bulk materials division, the Halliburton transports will be used for delivery of bulk mud materials from Kaffie's 22 yards along the lower Texas Gulf Coast and in the Rio Grande Valley.

Busby Named Regional Manager For Security

Leonard H. Busby has been named southern regional manager for Security Engineering Division, one of the Dresser industries.

Busby, formerly a regional sales representative for Security, now will supervise sales activities throughout South and East Texas, Louisiana, Southern Arkansas, Mississippi, Alabama and Florida. He will be headquartered at the company's main plant in Dallas.

New Equipment You Should Check



Tellurometer

Measure Distance By Microwave

A Tellurometer system, an electronic device which measures distances directly by means of microwaves, makes it possible for a pipe laying engineer to easily fix position way out in the deep blue, where there are no "bench marks" to help.

Operators can communicate from barge to shore by means of the Tellurometer's built-in, two-way radio. The instrument's range (up to 40 miles) and accuracy (to 3 parts in a million, plus or minus 2 inches) is more than adequate to enable the contractor to meet his specifications. Unaffected by fog or darkness, the threat of delay is eliminated.

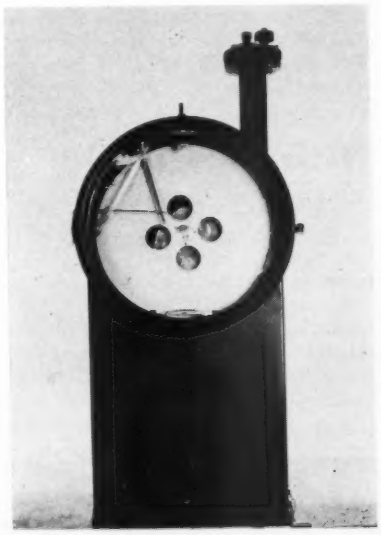
For further information write **Highway Information Services, 824 Colorado Bldg., Washington 5, D.C.**

Dial-O-Graph . . .

Automatic Chart Changer

Will operate up to 30 days unattended, should prove real boon to gas producers offshore

A new automatic chart changer, **Dial-O-Graph** will operate up to 30 days unattended, should prove a real boon for offshore gas producers.



Instrument will load up to 32 charts. When top chart is fully recorded, an actuating device releases the recorded chart from the center holding apparatus, allowing it to fall into receptacle. The recorded chart drops so fast after being released that pens do not mark or mar it. The recorded charts stack up in chart receptacle in chronological order with wet chart always on top. Recorded charts may be removed instantly—or days later.

Dial-O-Graph does not require any revolutionary change in present equipment used in the recorder intrument field, as it merely supplements that equipment by eliminating the necessity of being at a given chart at a specific time or day.

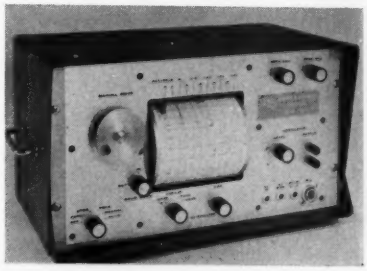
Combined with a universal MacNick type spring driven chart drive, **Dial-O-Graph** requires no power to operate other than that supplied by the chart drive. Instrument has been thoroughly field tested, is now being used by many major companies. **Mullins Mfg. Co., 3311 W. Davis St., Dallas 11, Texas.**

Valves

New Design Gives Positive Sealing, Ease Of Operation

A ball-bearing-mounted spherical plug-type valve has been developed for a new line of kelly cocks and drilling safety valves. Valves feature compactness, great strength, positive sealing and unusual ease of operation under all pressure conditions, according to the manufacturer.

Compact and sturdily constructed, the new valve may be used as a standby safety valve for quick, easy installation into open casing, tubing and drill pipe strings should a blowout threaten. For further information write **Hydril Company, 714 West Olympic Blvd., Los Angeles 15, Calif.**



Response plotter

Eliminates Expensive Hand-Plotting Method

Model ARP-2 audio response plotter has been introduced to provide permanent, pen-written frequency response curves of any audio range equipment quickly and economically.

Circuitry is included to allow the ARP-2 to be used as a 0 to 1 vdc recording voltmeter. Front panel is slotted to permit it to be rack-mounted. Input to the system under test is supplied by a 20-20,000 cps audio oscillator. Records are plotted automatically on a 40 db-range logarithmic chart by a high-torque, servo-controlled, dry writing pen recorder. The instrument can accept

(*Continued on next page*)

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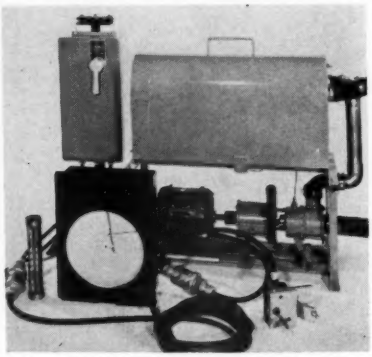
Response Plotter . . .

(*Continued from preceding page*)

voltages up to 10 volts, while input sensitivity is 40 db down from 10 mv. For more information write **Southwestern Industrial Electronics Company, 10201 Westheimer Rd., Houston 19, Texas.**



Mud-weighing device

Automatically Registers Loss Of Circulation

A new mud-weighing device automatically indicates and records weight of mud being discharged, providing a continuous and uninterrupted safeguard against dangerously high or low weights, and registers loss of circulation immediately. Pumping the mud directly from the flow line through a specially-designed scale, it weighs a continuous flow sample which is permanently recorded on a clock-driven chart and indicated continuously on a manometer.

Both charts and manometers are calibrated in pounds per gallon, specific gravities, or pounds per cubic foot for quick, accurate reading. For further information write **Bell Mudwate Corporation, Box 849, Odessa, Texas.**

Natural gas engine

Serves Wide Variety Of Power Applications

A brochure giving full operational information, field-test data, prices and complete specifications on the GAC-2 natural gas engine is available from the manufacturer.

Developed for economical use where natural gas is available for fuel, the engine is adaptable to a wide variety of applications including prime power for pumps, compressors and generators, and liquid

transfer and shallow well pumping.

Copies of the new brochure can be obtained by writing American MARC Inc., 1601 W. Florence Ave., Inglewood, Calif.

Blade string tool

Interchangeable Blades Provide Wide Versatility

Replaceable blade string tools that convert for use as up-hole guides, as casing mills or reamers or as bit stabilizers with the simple changing of blades right on the rig are now available.

The tool uses no welding, locking nuts or plates to hold the blades, but rather uses elastic steel pins inserted into contoured longitudinal grooves on each side of the blades and in the body, so that there is nothing to come loose in the hole to cause expensive fishing jobs.

For further information write **Kinzbach Tool Company, P.O. Box 277, Houston, Texas.**

Reference

All About Mineral Products For The Petroleum Industry

A condensed 8-page, two-color catalog describes the physical and chemical properties of aluminum silicate pigments, attapulgus clays, activated bauxites and limestone products, which are widely used throughout the oil industry.

Catalog may be obtained without cost from **Minerals & Chemicals Corporation of America, Essex Turnpike, Menlo Park, N.J.**

Bulletin

Tubing Joint Engineering Data Now Available

Tubing joint engineering data on all recognized types of joints is included in a new technical bulletin (#DS-59D) just released. Data covers such things as tubing and joint or coupling O.D., wall thickness, make-up torque, burst and collapse strength, setting depth, etc. Simple formulas for calculating running clearance in casing for multiple strings are also included.

To order bulletin write **Hardy-Griffin Engineering Corporation, 14522 South Main St., Houston 25, Texas.**

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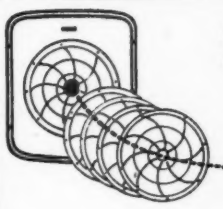

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Modern Ocean Wave Forecasting

By GAINOR J. LINDSEY
Special Correspondent

Hurricanes have long been a major fear along our coastal areas. These storms are usually defined by a central barometric pressure less than 29.00 ins. and wind velocities exceeding 75 mph.

Dr. Basil W. Wilson, professor of engineering oceanography at Texas A. & M. College, has spent several years studying the phenomenon of ocean wave generation in the hopes of finding a more precise method of predicting the wave potential of these severe storms.

Forecasting of ocean waves generated by moving variable wind systems in deep and shallow water is the current project on which Dr. Wilson and his staff are working. The method of approach involves the study of past hurricanes. Hurricane Audrey, which hit the coast of Louisiana in June, 1957, doing hundreds of thousands of dollars damage and killing many people, is the particular storm being studied.

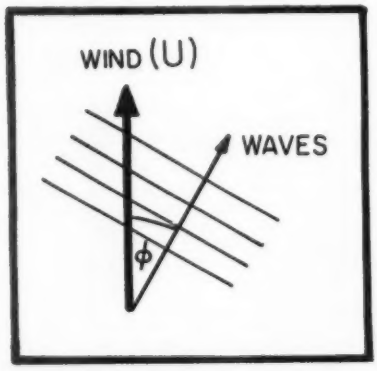

FIGURE 1

The project is financed jointly by the Engineering Foundation in New York, the Magnolia and Humble oil companies, and the Office of Naval Research.

The system employed will be an adaptation of a graphical method for forecasting the height of waves at any given point on a coast line. The method may be applied to waves generated by moving wind systems of variable velocities as well as stationary systems.

The project has two main objectives and certain secondary objectives. The first primary objective is to verify the moving-fetch variable-wind graphical forecasting procedure by direct comparison of results with wave observations at one or more deep water stations. This is to determine whether the height H of waves generated in a given direction is a function of $(U \cos \phi)^2$ or $(U^2 \cos \phi)$, U being the wind value as shown in **Fig. 1** and ϕ the angle of inclination of the wind vector to the given direction.

The second primary objective is to investigate the possibility of extending the graphical solution to rapid forecasting of wave conditions in near-shore environments where water depth, shoaling, friction, and refraction are complicating factors in wave generation.

The secondary effort will be towards determining the effects of opposing winds and of wave decay. In the past, forecastors have virtually ignored the action of opposing winds on wave propagation. As **Fig. 2** shows, the true distribution of wind may vary greatly from the average wind distribution, commonly used in wave forecasting. Not only has the true distribution usually been approximated by a constant value over an arbitrary fetch, but the negative values shown (opposing winds) have been ignored. Also time changes in the wind structure have often been rather summarily dealt with.

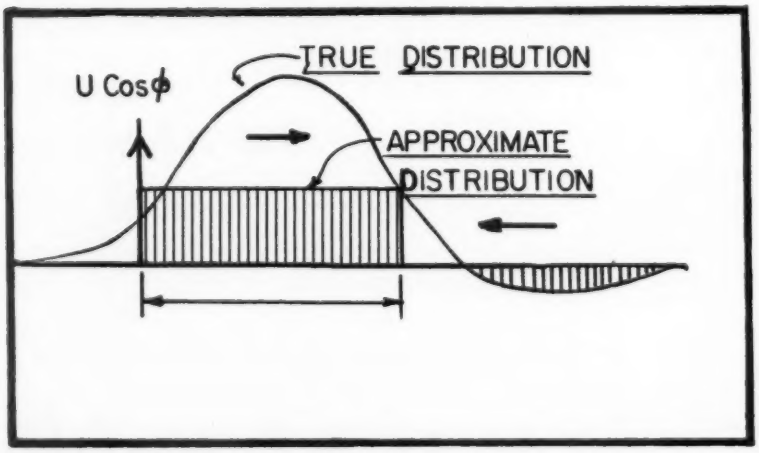

FIGURE 2

Fig. 3 shows a model hurricane or tropical storm with its spiral wind motion and direction of travel. A possible line of approach of waves to a shore station P is shown as a wave ray. The fetch is the distance over which the wind acts on the water to produce waves, and the duration is the time in which it so acts. These fetch and duration determinations have been sources of error in wave forecasting because they have hitherto been rather subjectively determined. The graphical method eliminates this subjectivity entirely. The wave ray line here constitutes the line of fetch and points are taken along this line at which wind velocity and direction are recorded. For clarity, take the sample point shown on **Fig. 3**. The wind of 60 knots crosses the wave ray at an angle of 35 degrees. Therefore the value of the wind along the wave ray would be 60 cos 35° or 49 knots. The values so obtained may be plotted on a wind field chart, as shown in **Fig. 4**, where X represents the distance from P along the wave ray, and t_1 t_2 t_3 are the the wave ray, and t_1, t_2, t_3 are the different times at which the sets of readings were taken. The point values then allow for the area being contoured for wind velocity, giving the wind pattern.

The curvature in the wave ray is caused by reflection of the waves as they move from deep water into shallow water. This is rather similar to refraction of light as it passes from one medium into another. Refraction can either increase or decrease the wave height according to the coastal configura-

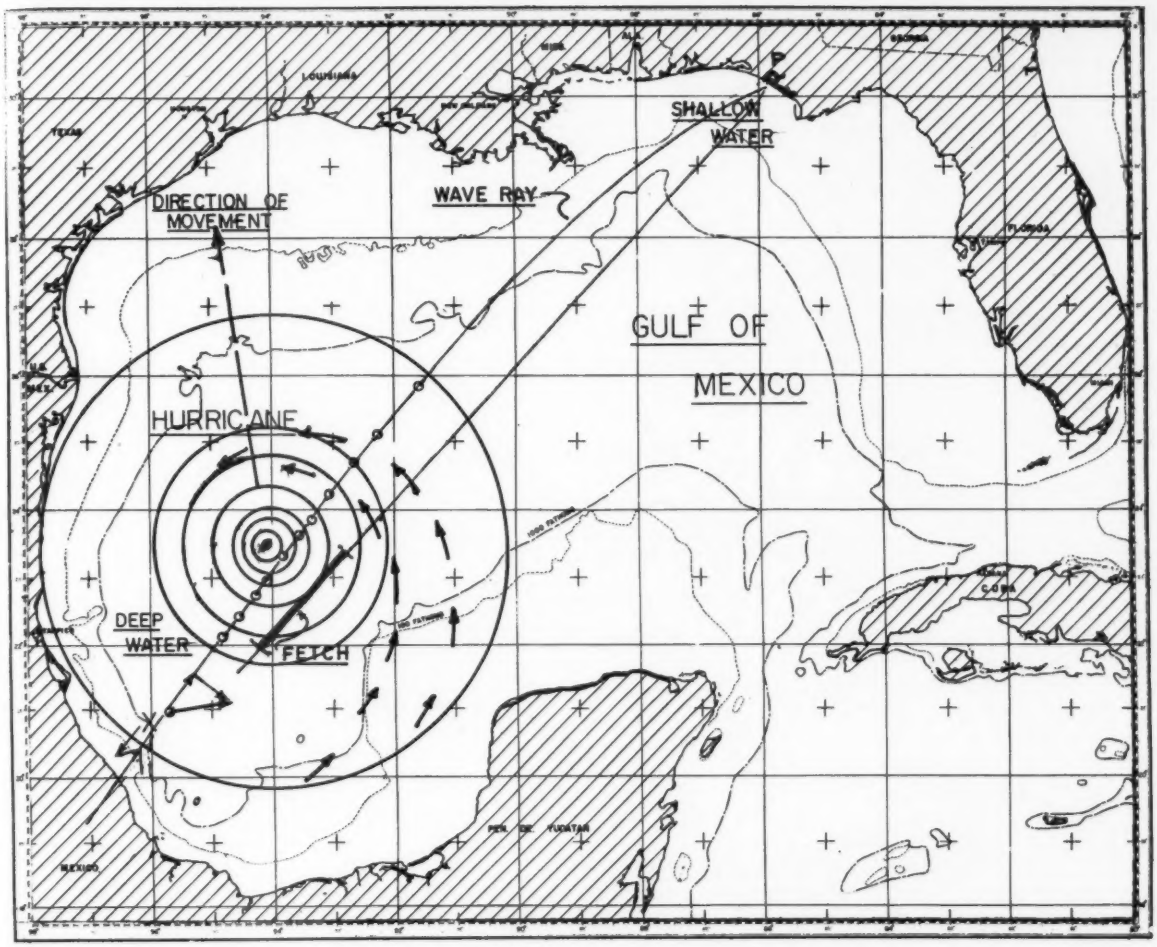

FIGURE 3

tion. The shoaling effect will tend to give the waves an increase in height. Naturally the friction of the bottom will tend to decrease wave height.

One practical aspect of this study might be the means it would afford of predicting accurately and quickly the size of waves which will hit any particular point on a coast line during a storm so as to properly warn people in the case of danger. Property damage and loss of life may be greatly reduced. The data is being set up so that it may be processed on high speed computer machines giving almost immediate results. However, the speed is ultimately likely to be governed by the rate at which wind data can be prepared.

Dr. Wilson said that Audrey will possibly be the only storm studied because of the length of time involved in reducing the meteorological data to usable form. However, if more funds are made available, possibly one of the East Coast storms may be studied.

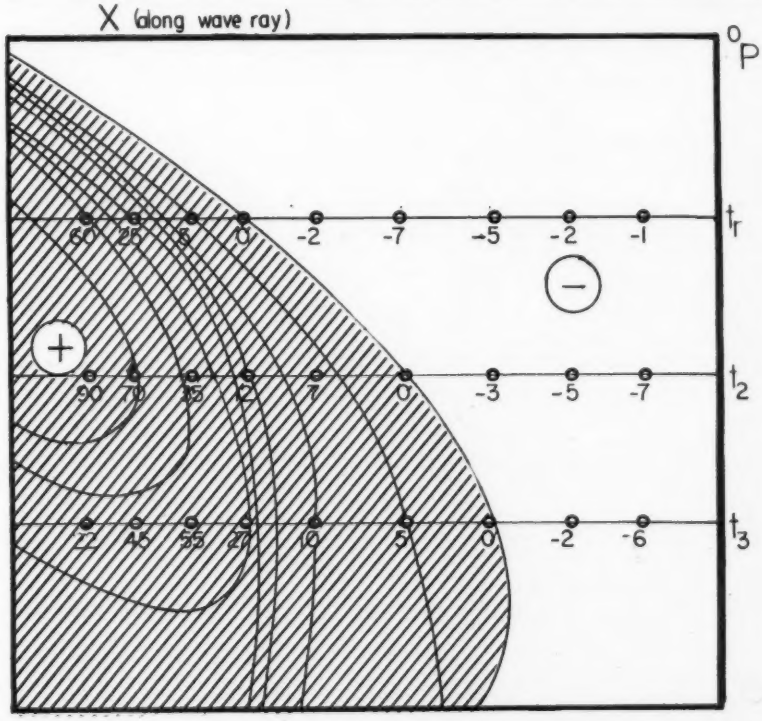

FIGURE 4

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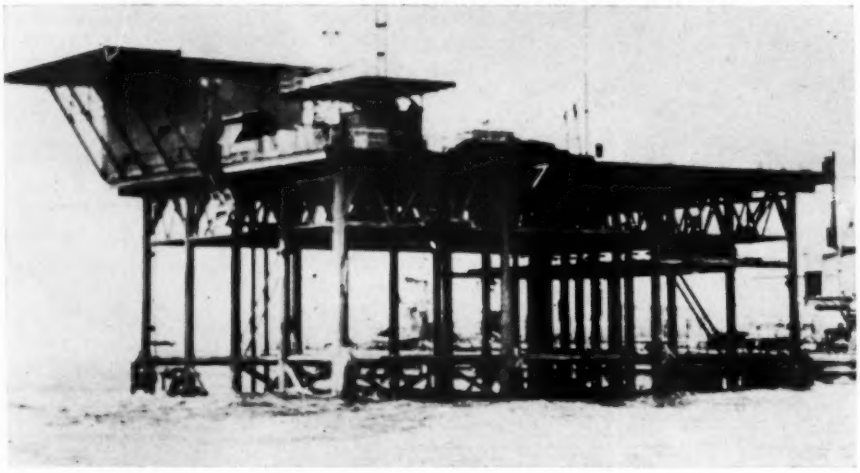

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DRILLING FOR HUMBLE in Block 54, South Timbalier area, is the drill tender DEEPWATER NO. 1. Formerly owned by Deepwater Exploration Company, the tender and platform rig shown above have been purchased by An-Son Offshore Drilling Company, a subsidiary of An-Son Drilling Company of Oklahoma City.

Venezuelan Sun has . . .

Big Lake Producer

SVSX-32 is dually completed for flow of 8,200 bpd, is 30th producing well on Block No. 1 concession

Completion of the 30th producing well has extended a considerable distance to the south the proved production acreage in Venezuela's Lake Maracaibo Block No. 1 oil concession.

The concession is held by Venezuelan Sun Oil Company, Venezuelan Atlantic Refining Company and Texaco-Seaboard Inc. Venezuelan Sun is operator for the group.

Producing from depths between 8,750-ft. and 9,400-ft., Well SVSX-32 is designated an outpost or stepout, and flowed 4,380 bpd from the upper zone and 3,820 bpd from the lower zone, both through 5/8-in. chokes.

Venezuelan Sun first discovered oil in Block No. 1 in mid-1957. Since then 30 wells drilled on the concession have been completed as oil producers. No dry holes have been drilled.

Louisiana

New Pay Found In Eugene Island Block 77 Field

Hunt Oil Company has opened a new oil reservoir in the Eugene Island Block 77 field, offshore from St. Mary Parish. New pay was found by the company's No. 2 OCS-0426, through perforations at 13,-606-624-ft.

Gauged on an 18/64-in. choke, flow was at the rate of 271 bpd of

(*Continued on next page*)

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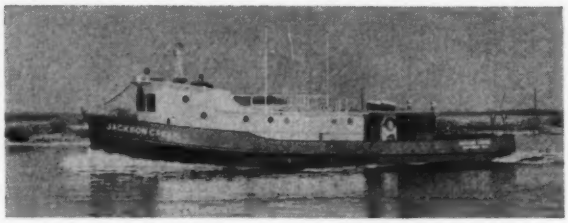

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Big Lake Producer . . .

(*Continued from preceding page*)

39°-gravity oil. Tubing pressure was 2400 lbs. and gas-oil ratio 1586 to 1.

From regular field pay through perforations at 13,884-853-ft., the well flowed 6,100 Mcf of gas plus 360 bpd of 53°-gravity condensate. Tubing pressure registered 4,000 lbs. and gas-condensate ratio was 16,950 to 1.

Hole was cased to total depth of 14,849-ft. for completion.

Lake Erie

Place Colchester No. 1 Flows 130 Bbls. In 9 Hours

Place Gas & Oil Company has an oil strike at its Place Colchester No. 1 well in Lake Erie, located 350-ft. offshore from Colchester South Township, Essex County.

The well flowed 130 bbls. of high-gravity oil in 9 hours, when it was shut-in pending arrival of additional storage facilities. Production is from the Trenton formation, just below 2,000-ft. In addition, oil was reportedly obtained from the Manitoulin formation at an approximate depth of 1,300-ft., but pay was cased off to drill to the Trenton objective.

Well was drilled on a 9,400-acre block in the lake held by Place Gas & Oil Company.

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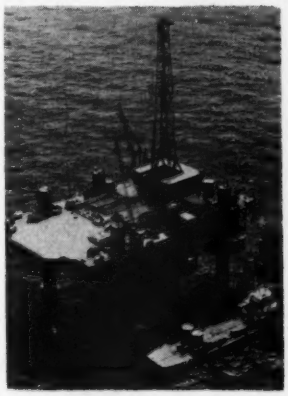

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SERVICE PERSONALITIES . . In The NEWS

Phillips

McBride

Halliburton Announces Major Administrative Changes

Three changes in Halliburton Oil Well Cementing Company's field administration have been announced.

J. L. McBride, division manager at Shreveport, has retired and is succeeded by Travis Phillips, who has been division manager at New Orleans. Burton Aulick was promoted from assistant manager to manager at New Orleans.

Aulick

Fain

Fain Promoted To New Post At R. G. LeTourneau, Inc.

Stan Fain has been appointed manager of advertising and sales promotion for R. G. LeTourneau, Inc. of Longview, Texas.

Fain joined the firm three years ago as advertising supervisor, later becoming assistant advertising manager. In his new position, he will head the LeTourneau advertising and sales promotion department.

BJ Service Establishes New Field Station In Bolivia

BJ Service, Inc., a Borg-Warner subsidiary, has moved into the rapidly-expanding South American market with establishment of a new field station in Yacuiba, Bolivia.

Well service operations are now under way at the Yacuiba station—located just north of the Argentine border—under terms of a contract with the Bolivian Oil Company and its operator, Big Chief Drilling Company of Oklahoma City. Services include cementing, fracturing, acidizing and high-pressure pumping.

Boutwell Oilwell Pump Sales Manager For Byron Jackson

Jerry F. Boutwell has been appointed sales manager of the oilwell pump section of Byron Jackson Tools, Inc.

Boutwell, who has 12 years of experience in submersible pump sales, will headquarter in Byron Jackson's Tulsa plant.

Boutwell

Hogan

Marine Products Appoints Hogan To Sales Staff

A. D. (Doug) Hogan has been appointed to handle distribution sales of MP pumps throughout the oil country, according to an announcement by Marine Products Company of Detroit. He will headquarter at Oklahoma City.

Hogan is a graduate of Oklahoma A & M.

Walker Named To Management Post At Raytheon Company

Leonard G. Walker has joined Raytheon Company's equipment and systems division as manager of the communication and control systems department, a newly-created post.

Walker was formerly with Motorola, where he served as marketing manager for microwave and industrial controls. He received his electrical engineering degree from the University of Utah.

Bethlehem Supply Will Sell Rolo Products in Oil Fields

An agreement to distribute products of the Rolo Manufacturing Company through Bethlehem Steel Company's supply division has been announced jointly by the two companies.

All oil well meters, gas dehydrators and other products manufactured by Rolo will be available through Bethlehem Supply's 66 oil country stores and offices.

Maloney Names Dawson Tulsa Office Manager

Lee Dawson, Jr. has been named manager of the Tulsa office of F. H. Maloney Company of Houston.

Dawson was transferred from the company's home office where he was production expediter. He will direct Maloney engineering sales and service in Oklahoma, Kansas, Arkansas, Missouri, Colorado, Montana, Wyoming and Nebraska.

American MARC Appoints Three Eastern Distributors

Appointment of three new eastern distributors by American MARC Inc., California manufacturer of diesel engines and generator sets, has been announced.

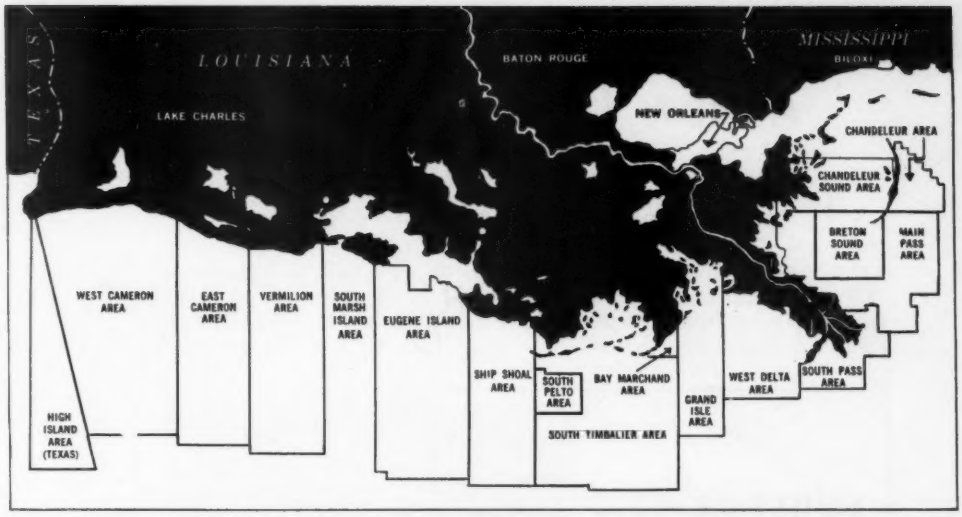
Appointed distributors are Allied Diesel Sales & Service of Boston, Mass., Harbor Supply Oil Company of Portland, Maine, and Scranton Tractor and Equipment Company of Scranton, Pa.

Auer

Etter

Etter, Auer Named To New Posts At Grant Tool

Grant Oil Tool Company has announced the appointment of Don Etter as sales manager and Leland Auer as chief engineer. Etter was manager and Auer was chief engineer of Cosasco Division of Perfect Circle Corporation prior to Grant's recent acquisition of Cosasco. Auer succeeds Clarence Leathers, who has been promoted to executive engineer of Grant and its MacClatchie and Cosasco Divisions.



LOUISIANA OFFSHORE LEASE MAP covers this area, but is printed in four colors, shows lease ownership, platforms, pipelines, water depth, etc.

Need an offshore lease map?

We have them — of Louisiana, Texas and Lake Maracaibo - Gulf of Paria. Maps are printed in 4 colors. Louisiana and Texas maps measure 22 inches by 77 inches, Lake Maracaibo - Gulf of Paria map 34 inches by 22 inches. Individual maps carry this information —

- Offshore lease blocks, by area and number
- Lease ownership, coded in color

The latest Louisiana map carries this additional information —

- Location of offshore drilling and production platforms (as of date of publication)
- Water depths
- Location of offshore pipelines
- Helicopter landing platforms

Maps may be ordered singly or in bulk at the following prices (including mailing):

Louisiana map.....$5 ea.
Texas map.....$3 ea.
Lake Maracaibo - Gulf of Paria map.....$3 ea.

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Associated Steel forms . . .

A New Offshore Division

Firm offers such diverse items as oilfield pipe and fittings, prefabricated offshore platforms

Want to buy an offshore platform —one that is completely fabricated with component accessories and ready for immediate erection?

Associated Steel Corporation, with executive offices in Chicago, Illinois, and warehouses in Los Angeles, Chicago, New Orleans, Pittsburgh, Philadelphia and New York, has formed a new offshore division to offer just this sort of service to the industry.

And offshore platforms already fabricated and ready for immediate delivery and erection will be sold out of stock, according to Ralph Handelman, sales director.

In announcing formation of the new division, Norman A. Shapiro, president of Associated Steel, said it was formed "to supply requirements of the offshore oil industry for plate, beams, structurals, as well as having available for immediate sale fabricated platforms."

The company maintains full lines of all types of steel at its various warehouses, and through its new division will offer all types of pipe and fittings to the oil industry. In addition to fabricated platforms and deck beams, another specialty the division is offering is new, domestic wide flange sections from 10-in. through 36-in., and up to 100-ft. in length. Material is located in Louisiana.

Associated Steel Corporation's executive offices are located at 176 W. Adams St. in Chicago.

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OFFSHORE, published monthly at Conroe, Texas for October 1959

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher and Editor, John H. Latham, Highway 75 N., Conroe, Texas; Managing editor, none; Business manager, Jean Latham, Highway 75 N., Conroe, Texas.

2. The owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual member, must be given.)

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5. The average number of copies of each issue of this publication sold or distributed, through the mail or otherwise, to paid subscribers during the 12 months preceding the date shown above was: (This information is required from daily, weekly, semiweekly, and triweekly newspapers only.)

JOHN H. LATHAM
(Signature of editor, publisher, business manager, or owner)

Sworn to and subscribed before me this 14th day of October, 1959.
(My commission expires June 1, 1961)
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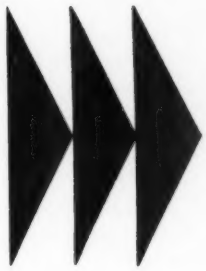

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We are looking for shallow drilling deals, preferably in the Texas Gulf Coast area, **less** than 2,000-ft. Also interested in shallow production.

Want working interest in anything we drill, will carry all or part. Particularly interested in large blocks, but will consider individual leases.

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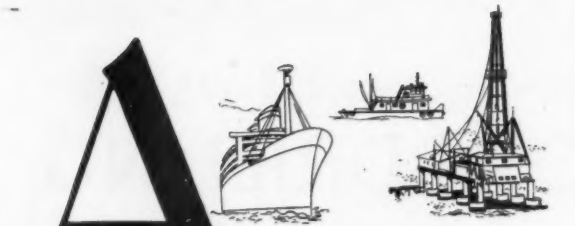

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The Slush Pit . . .

The traffic was heavy. A toolpusher and a woman driver collided at a busy intersection. A policeman walked over, listened to the dispute, and offered this advice to the man:

"I'd settle if I were you, sir. After all, it's your word against literally thousands of hers."

The teacher decided the students in her class should write a girl or boy in a foreign country. Little Willie was handed the name of a girl from Holland for his pen pal.

That night he shocked his mother by saying, "Guess what, Mom, I got a girl in Dutch."

First cannibal: "Am I late for dinner?"
Second cannibal: "Yes, everybody's eaten."

Only one man in a thousand is a leader of men. The other 999 are followers of women . . .

We heard about a musician who worked all week on an arrangement—and then his wife didn't go out of town, after all.

Someone asked a roustabout if it was true he was brought up in a tough neighborhood.

"Tough?" said the roustabout. "Why it was so tough in our neighborhood a cat with a tail was a tourist."

Sign on the wall of an oil company's leasing department:

"Don't start any vast projects with half vast ideas."

A man who thinks marriage is a 50-50 proposition either doesn't understand women or fractions.

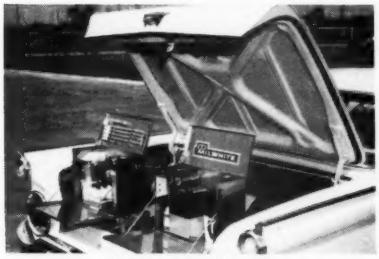
Engineer: "So you met your wife at a dance. That was romantic."

Cook: "Hardly. I thought she was home taking care of the kids."

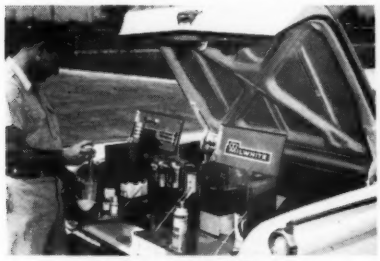
"Did you see the pinup in the recreation room? Talk about realistic—WOW!"

Kits in Traveling Position

Kits in Raised Position



Open for Work



Making Mud Tests

Making Pilot Tests

Portable to Work Location

MILWHITE'S PORTA-LAB

THE NEW LAND AND SEA MUD TESTING LAB

Milwhite Mud Sales Company has developed for the drilling industry a new portable mud testing lab. The Porta-Lab was designed to be both flexible and compact. It can be carried onto offshore barges or into sheltered buildings or simply worked from the trunk of an automobile.

The complete Porta-Lab comprises two separate units which resemble medium-size suitcases. They are generally installed in the trunk of the automobile on specially designed mounting brackets and are attached to the brackets by two wing nuts. The Porta-Lab can be easily removed from the trunk by loosening the wing nuts.

Each Porta-Lab unit measures 16-13/16 inches wide, 12-3/16 inches high, and 7-1/2 inches deep. They are fabricated from 18 gauge stainless steel. Fully equipped, one unit weighs 38-1/2 pounds and the other 28-1/2 pounds.

The Porta-Lab was designed to provide for two distinct phases of the mud engineer's work. One unit is used to measure all the mud properties with the exception of the funnel viscosity, mud weight, and oil content. The second unit is used to make all mud pilot tests and retort analyses.

The Porta-Lab is made to provide its own work table. When open, the top lid is hinged into a vertical position. The front side or panel is hinged to drop forward into a horizontal position to make a suitable work table.

Features incorporated in the field test lab include the mounting of the filter press on the exterior right side to allow the use of a 10 or 25 ml graduated cylinder to keep possible filtrate spillage from the other equipment. Plastic is substituted for glass wherever possible to keep breakage cost at a minimum. The positioning of the viscosimeter, filter press, and other equipment provide excellent handling balance.

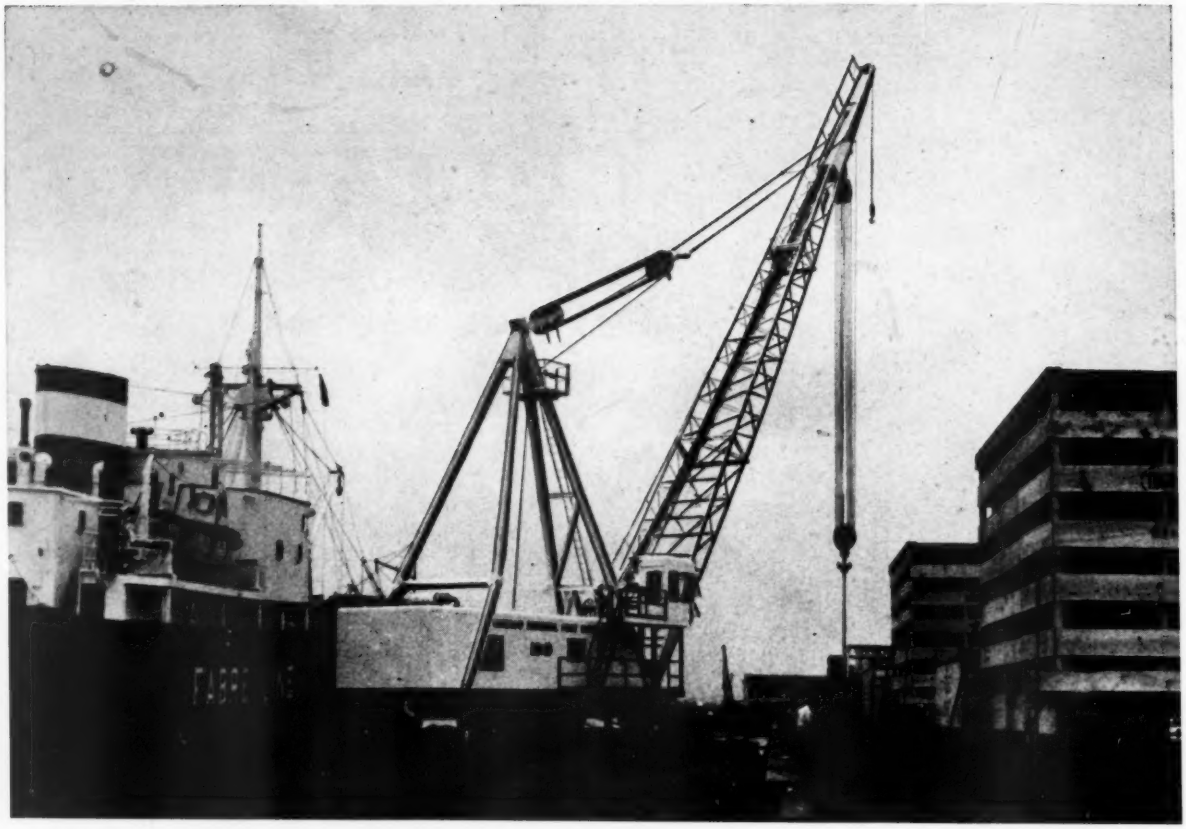
In the pilot test lab, a built-in retort eliminates the need for a separate carrying case for this unit. The retort receives its heat from an LP bomb which gives approximately 10 to 15 retort analyses. Distillation time is normally faster than for the conventional electric heating elements. Another plus feature of the Porta-Lab is that rig voltage is not relied upon for the analysis. Room is also available for an optional power converter to give 12 volts AC from 110 volts AC to power the V-G Meter and mixer motor.

MILWHITE

MUD SALES COMPANY

HOUSTON, TEXAS

DIVISION OF MISSISSIPPI RIVER FUEL CORPORATION



Great Lakes' Largest . . .

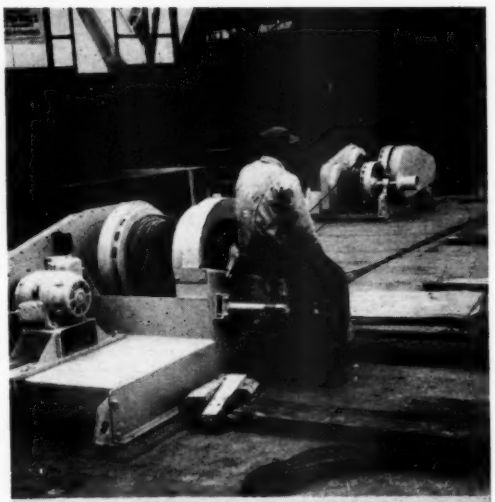
Clyde Whirley Handles 110 Ton Lifts For Chicago Regional Port District

Now boasting the most powerful crane on the Great Lakes, the newly developed Lake Calumet Harbor is well equipped to handle the heaviest cargoes shipped via the Great Lakes waterway.

Installed recently by the Chicago Regional Port District, this Whirley, another addition to Clyde's imposing list of port installations, has a load capacity of 110 tons at a 45 foot radius and 38 tons at 125 foot radius. The Whirley has a full-revolving 110 foot boom with 20 foot extension and is barge mounted to service the entire harbor. Two Clyde deck winches shift the barge along the dock or vessel as operations require.

Clyde Whirleys have long been acknowledged as cargo-handling workhorses of the world's leading ports. Operating with buckets, hooks or magnets, Whirleys have an unequalled reputation for reducing costly tie-up time for vessels and for fast, dependable, low-cost handling of any type cargo.

Write or phone our Marine Engineering Division for complete specifications on Clyde Whirleys, custom-engineered to best serve your particular needs.



Two Clyde electric hoists give the Chicago Regional Port District's Whirley 'run-of the harbor'. Barge mounting saves dock space, always at a premium in busy ports.

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